UNIT STUDIES IN GEOGRAPHY

By

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Prince Kropotkin tells of a Russian woman of wealth who asked, "Why should my son be burdened with the study of geography, when the family coachman can take him to any place he needs to visit?" There was some sense in the lady's question. Why, indeed, study mere facts of geography as if the acquiring of them were an end in itself? It is a sound principle of pedagogy that the relation of facts to life and culture shall be made apparent to the young student. That principle underlies this volume of *Unit Studies in Geography*. Here is a guide that points out directly or by apt questioning the relationships between different facts concerning our world and the bearing of these facts on our own lives. Here a specialist in the teaching of geography offers her effective aid in presenting the subject under any course of study and with any basal text. Just this thing has not been done before, and the publication of Miss Clark's book is a distinctive addition to the publishers' list of "Books that apply the world's knowledge to the world's needs"

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PREFACE

This book is made up of a series of units of study in geography. The units have been selected primarily to suit children's needs and interests; secondarily, to conform to business practices and social ideals. The child's world and the world of business and society thus become identical — and that is one of the great purposes of modern geography teaching.

The unit studies outlined here provide the teacher with a working plan that is both flexible and individual. They show the connection between the child's present interests and the geographical subject which he is to investigate. They suggest materials for him to work with and the way to use such materials. They are planned to start the child on the road to straight, clear thinking by giving him something to think about and suggesting *ways to do his thinking*. Much of the school material that we put before children is so thin that there is nothing in it to think about! In self-defense the child resorts to mere memory work and acquires a few unrelated, comparatively meaningless facts in geography. And yet, real geography can interpret the world to the eager, wondering child!

The unit studies outlined here may be used with any course of study and with any textbook. Since each unit is made independent of any other, it may be taken in the order which best suits local needs. The order in which they are given here has been tried out in many schools and has proved generally satisfactory. There is nothing arbitrary about it, however.

About eight or ten units will make a full year's work. If a few local studies are added and the units are arranged in the order which best suits the local school program, a course of study in geography may be made which is peculiarly your own.

The superintendent or supervisor may select the units he wishes to include in a year's work. He arranges them

in the order that best suits his general program. He adds three or four unit studies on local geography. He makes the course flexible by giving the teacher some choice of the units which she may wish to emphasize in any given grade or year.

It is hoped that these studies may simplify the work of the teacher of geography by defining exactly the units which she is to prepare to teach in a given year. For the busy superintendent or supervisor, it is hoped that the unit studies may suggest a very practical way of building his own course of study in geography.

PART ONE

UNIT STUDIES FOR PRIMARY GRADES

A FOREWORD TO THE PRIMARY TEACHER

THERE are two series of unit studies in primary geography, "Geography of Everyday Life" and "The World Outside." "Geography of Everyday Life" is planned to help the child understand his own environment. These unit studies are chosen with a view to opening the child's eyes to the things around him. He is surprisingly blind to some of his everyday surroundings; to others, he has an open mind and an eager curiosity. We wish to use this present interest to lead him into new fields of his environment.

The units outlined here are to be made the basis of informal conversational lessons. They are simple studies on subjects of everyday experience. References to textbooks and to suitable supplementary books are given, so that the child may have an opportunity to read for himself, after each unit has been carefully introduced and discussed; or the teacher may prefer to use some of this reference material as a basis for her own discussion with the class.

It is not intended that the unit studies of these series should be taken continuously. Alternate them with units from "The World Outside" series, and thus avoid the monotony of a too continuous demand upon the child for the same form of observation.

The unit studies in "The World Outside" series were planned to help the child see how other people live. The "human types" were chosen because their environment and mode of life contrast sharply with his own, and because their response to physical environment is direct and easily understood.

These lessons, too, are informal and conversational. The reference lists suggest material suitable for extended silent

reading. After a child has entered into a vigorous class discussion of one of these units and has read some of the story material, he should have the chance to stand up and talk freely on some subjects of his own choice. Perhaps he would like to stand by the sand table (which the children have previously arranged) and use it to illustrate his talk. Primary geography furnishes natural and delightful opportunities for extended silent reading and for oral English. The children should also be encouraged to make short "write-ups" of phases of the unit study which have proved particularly interesting.

A. THE GEOGRAPHY OF EVERYDAY LIFE

UNIT 1. DIRECTION

Time required: 1 to 2 weeks

Disclose the need for a knowledge of direction by questions like the following: Your cousin in Denver wishes to know just where you live. How can you tell him in a letter? How do you go to your home from the post office? from the schoolhouse? from the railroad station? (Show that the terms *right* and *left* are not sufficient in locating places.)

Fix north as the first direction. A few minutes before noon, stand with your back to the sun; now you are looking north. This is true all the year. It is not true that the sun rises in the east and sets in the west, except in March and September. For that reason do not fix those directions in that way, except in March and September. Now fix other cardinal directions from north; then the semi-cardinal directions. In an out-of-doors lesson, call attention to the direction of shadows at noon. Suggest that a line following this noon shadow direction is called our *noon line* or *meridian*. Help the children to imagine that line as it extends far north and far south. It passes through many interesting places, where strange people live; yet their noon shadows are on that line, and their noon comes just when ours does.

Drill questions. Face east. Point north. Name two objects in the room that are south of you. What direction are you facing as you sit at your desk? In what direction is the nearest church? In what direction is the river or creek from the schoolhouse? In what direction does it flow?

Draw on the floor a diagram of an eight-pointed star, showing the cardinal and semi-cardinal points. Teach these directions. Now let eight children occupy the eight points. Name any two points and ask the children to change places.

Continue direction drill for a few minutes at frequent intervals throughout the year. Discover other methods of telling directions, as moss on trees, North Star, length and direction of shadows, the compass. Encourage the children to think about the noon line and to use the new word *meridian*.

References

BRIGHAM AND MCFARLANE: *Essentials of Geography*, First Book, pages 57–59.
DODGE: *Elementary Geography*, page 50.
FRYE: *New Geography*, page 55.
LONG: *Home Geography*, pages 8–20.
MCMURRY AND PARKINS: *Elementary Geography*, pages 33–34.
SMITH: *Human Geography*, Book I, pages 14–16.
TARR AND MCMURRY: *Geography*, First Book, page 83.

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UNIT 2. DISTANCE AND SIZE

Time required: 1 to 2 weeks

NOTE. To help a child appreciate distances on the earth.

Ideas of distance are necessary in order to understand how large the world is and how far apart places are. Begin by teaching the length of a foot. Do not teach twelve inches, but try to give the child a correct mental picture of the length of a foot.

Drill questions and estimating size. Have the children hold their hands a foot apart. Measure. Let the child tell whether they are too close or too far. Point to objects in the room a foot long. Measure them. Draw a line a foot long. Draw a line twice as long as a foot. Point to lines or objects in the room two feet long. Walk within two feet of the teacher; then face east. Draw on the blackboard a line three feet long. This is called a *yard.* Point to some objects a yard long. How long are the desk, the wall map, a picture on the wall, etc.? What is the length of a step or pace? Pace the schoolroom, the school yard.

Teach the mile by some well-known distance. How many blocks make a mile? How long does it take you to walk a mile? How many miles is it from your house (or town) to the next town? How long does it take to go there by train or automobile? Who has had a long journey on the train? Where did you go? How many meals did you eat on the trip? How many nights did you sleep on the train? Trace on the globe some of the long journeys the children have had, and estimate the distance. Judging by these trips over parts of the United States, estimate the entire distance across our continent. Who has traveled to Europe? How long did it take? How far is it across the Atlantic to France? Prepare for later work by this estimation of distance in terms of time required to travel over it. Repeat, at frequent intervals, drills in telling direction and in estimating distance and size.

UNIT 3. SURFACE FEATURES IN YOUR NEIGHBORHOOD

Time required: 1 to 2 weeks

Purpose. That the child may learn to observe and recognize some simple geographic forms and to summarize his observations in statements that will prove true in later work.

(*A*) Hills and Valleys

Select a hill to illustrate this lesson. It should be convenient and conspicuous and should have several slopes and a definite summit. Teach the terms *summit*, *base*, *foot*, *slopes* (*steep*, *gentle*, *abrupt*, *gradual*), *ridge*, *valley*, *bluff*.

Note. In case such a hill is not easily accessible, model one on the sand table and develop the terms from this.

A few suggestive questions. How many sides has this hill? What is the top called? the foot? the sides? What can you see from the summit? In what direction is your home? How do you walk downhill? Why do you come more slowly uphill? About how high is this hill? (Compare with near-by trees, houses, windmills, etc., to estimate height.) Teach the term *horizon*. Show that "each upward step widens the horizon." What is the longest slope in your neighborhood? the steepest slope? the widest valley?

Uses of hills. Are wagon roads usually located over the highest hills? How about the railroads? Are the best farms on steep hills? How does a farmer usually make use of the steep hill slopes on his land? Are trees planted on hillsides? Are there more orchards on the north slopes or on the south slopes in your neighborhood? Are there more vacant lots in your town on the hill slopes or on the level land? How are houses built on hillsides?

Summaries. Some summaries are excellent in this study of land forms. A *hill* is a piece of ground a little higher than the ground around it. The lower land between hills is called a *valley*. A *plain* is a broad, nearly level piece of ground.

References

BRIGHAM AND MCFARLANE: *Essentials of Geography*, First Book, pages 12–13, 19–21, 24–27.
DODGE: *Elementary Geography*, page 16.
FAIRBANKS: *Home Geography for Primary Grades*, pages 70–75.
FRYE: *New Geography*, pages 23–26.
HUTCHINSON: *The Story of the Hills*.
LONG: *Home Geography*, pages 35–39.
REDWAY AND HINMAN: *Natural Introductory Geography*, page 23.
RIDGLEY AND DILLON: *Home Geography*, pages 36–38.
SALISBURY, BARROWS, AND TOWER: *Elements of Geography*, pages 465–512.
TARR AND MCMURRY: *Geography*, First Book, pages 18–31.

(*B*) MOUNTAINS

This discussion naturally follows the study of hills, although mountains may not be found in the child's neighborhood and cannot be studied from nature. Use many pictures in this work. Ask the children to bring pictures, and select only those which illustrate clearly some definite phase of mountain scenery. Suggested list of terms: *peak*, *precipice*, *chain*, *range*, *plateau*, *pass*, *canyon*, *timber line*, *snow line*, *landslide*.

Show differences between hills and mountains, in height, materials, slopes, vegetation. Describe the appearance of mountains, using every significant phrase you can find. Compare distant mountains with masses of sunset clouds. Give the idea of height by showing that some mountains reach above the clouds.

Interesting topics. How I climbed a mountain. Mountain railroads. Animals that live on mountains. Plants that grow in the mountains. Why I should like to see the mountains.

Uses of mountains. Minerals, forests, scenery, health resorts, influence on climate (very simply stated).

Summaries. A *mountain* is a very high piece of ground, much higher than a hill. The *peak* is the top. A *precipice* is a steep part of the mountain side, almost as straight up and down as a wall. A *chain* is a ridge of mountains. A *pass* is the lowest crossing of the mountains.

Construction Work

(*a*) Model in sand a hill with one long slope and one steep slope. (*b*) Locate roads, houses, orchards, a town, etc., by simple devices. (*c*) Model a mountain chain, with peaks, passes, precipices. Use cotton to represent snow on the summits. Point out the snow line and the timber line, using twigs or bits of evergreen to represent trees. Be sure to show one or two high flat plains, and introduce signs of life, as something to represent a ranch, with pasture land and cattle.

In using your collection of pictures, select certain ones to illustrate clearly such phases as *canyon*, *snow line*, *chain*, *pass*, *mountain rocks*, *peaks*, *mountain vegetation*, etc. Number the pictures and distribute them to the class, asking each child to name the features he recognizes in his picture. This study of the pictures may be made the basis for oral and written language lessons.

UNIT 4. THE WORK OF RUNNING WATER

Time required: 2 weeks

The fate of the rain. Some of the water that falls as rain runs off and flows downhill to lower places where there are creeks and rivers. How does *Run-off* find the way to go? Where does it run the fastest? Did you ever see the water running down the road after a rain? What did it do to the road? Are the ditches it cuts dangerous for travel? What became of the material that used to fill these ditches? Are the ditches deeper in some parts of the road than in others? Where? What does the rain water look like as it runs down a steep place in the road? What is it carrying? Mud, sand, and gravel are the load the Run-off carries. Does Run-off carry more mud and sand when it is going fast or when it is going slowly? Did you ever see water run down a slope in a plowed field? Did it do any harm? Does it work in the same way when it runs down a slope in a pasture? Why not? Where does the water go after it gets to the foot of the hill? (Suggest some definite slope, where the water runs into a drainpipe or into a ditch, thence to a creek or river.) Does Run-off carry its load all the way? If Run-off is picking up and carrying off mud and sand from the hillsides and dropping it on the more level places, what is happening to the hills? Run-off is very busy making over the surface of the earth on which we live. For ages it has been carrying away material, bit by bit, and storing it in some lower place. So nearly all our hill sand valleys are formed by Run-off, because it has removed more material from some places than from others.

Visit a stream and observe the following: *source*, *slope*, *divide*, *tributary*, *fall*, *delta*, *drainage basin*. Find miniature land and water forms here: *peninsula*, *cape*, *bay*, *island*, etc. Select a place along the stream where there are several tributaries not far apart. Do the tributaries join the main stream on a level or with a fall? Do they make an acute angle upstream or downstream with the main stream?

What change takes place in the width of the valley as you go downstream? Which is the right bank? the left bank?

Uses of Streams.

1. Lower hills and fill in valleys.
2. Make natural railroad beds (as the Platte Valley or the Mohawk Valley).
3. Furnish fish.
4. Supply ice.
5. Supply water for cities.
6. Afford means of travel.
7. Falls make power for lighting cities and for running street cars and manufacturing plants.
8. Move logs downstream in a lumber region.

Summaries. Some of the rain soaks into the ground and feeds wells and springs. This may be called *Run-in* or *Soak-in*. Run-off goes fastest down steep slopes. Mud, sand, and gravel are the load Run-off carries. The faster Run-off goes, the greater the load it can pick up and carry away. Some of the load is dropped when Run-off has to go more slowly. Run-off goes more slowly where slopes are gentle. A *drainage basin* is all the land whose Run-off feeds a stream. A *divide* is a ridge which has Run-off going down two opposite slopes. The *source* of a stream is where it begins. The land over which it flows is its *bed*.

Where does the water in a stream come from? Where does it go? Why do we sometimes have floods in stream valleys? What harm does a flood do? What good may it do? Tell about the Nile River, and locate it on the globe. How are falls made? Tell about Niagara, and locate it on the globe.

Construction Work

Model in sand (*a*) a stream basin with the right slope steep and the left slope gradual, (*b*) a basin with a stream having many tributaries which become longer toward the mouth, (*c*) in which there is a fall, (*d*) in which the left slope is broken by many small hills, (*e*) in which a railroad is represented as running along the valley and a bridge and town are shown.

UNIT 5. SOIL, AND SOIL FORMATION

Time required: 1 to 2 weeks

NOTE. This topic should be given in the spring, when the home and school gardens are being planned and when the study can be motivated from the local gardening interests.

Uses of soil. Necessary for life of plants and indirectly of animals. What would be the result if the earth were solid rock without a covering of soil?

What soil is. Observe crumbling rock in buildings, foundations, etc. Take the class on a trip to a neighboring field where there are some partly decayed rocks. Discover (1) that soil is made of decayed and broken rock, (2) that the agents that break rock are rain, heat, cold, ice, roots of plants, animals.

Appearance of soil.

1. *Color.* Visit a cut in the road and see that soil is blacker near the surface.

2. *Fineness.* Bring specimens of different soils in bottle. Rub particles between fingers to discover differences in size. Pour water on each kind. Which takes up water most quickly? Which takes up most water? Which retains the water longest? Then which soil will withstand dry weather best?

Occurrence of soils. Secure specimens of soil from (*a*) the edge of a stream, (*b*) a steep slope, (*c*) a broad valley. Compare as to color, fineness, etc.

Most children have heard discussions about *good* soils, *poor* soils, *thin* soils, soils suitable for different crops, etc. Lead them to recall these, and to cite local instances of different soils which have proved excellent for corn, alfalfa, wheat, clover, beets, potatoes, watermelons, etc.

Kinds of soils. Clay, sand, humus. If soil is decayed or broken rock, why are some soils largely clay and others very sandy? What effect has vegetation on soil?

Additional questions. What is done to enrich poor soils? How does the gardener or farmer prepare the soil for crops?

Why does he do this? Does the rain wash away any of the surface soil? Where is this wash the greatest? What becomes of the surface soil that is washed from steep slopes? Where is soil very thick? Where is it very thin?

References

Brigham and McFarlane: *Essentials of Geography*, First Book, pages 9–18.
Fairbanks: *Home Geography for Primary Grades*, pages 15–28.
Frye: *Brooks and Brook Basins.*
—— *New Geography*, pages 18–22.
McMurry and Parkins: *Elementary Geography*, pages 1–10.
Ridgley and Dillon: *Home Geography*, page 83.
Rocheleau: *Geography of Commerce and Industry*, pages 11–16.
Smith: *Human Geography*, Book I, pages 56–58.
Tarr and McMurry: *Geography*, First Book, pages 10–16.

UNIT 6. THE AIR

Time required: 2 to 4 weeks

How I know that air is a real thing. Based on children's experience with the wind. Grass and trees sway. Clouds move. Birds fly and float. Kites fly. Windmills turn. Wind ruffles child's hair; blows his garments; etc.

Why does air move? — Winds. Heat expands air; that is, the air particles get farther apart, causing the air to become lighter and to push out in all directions, but mostly upward because it is easiest to go in that direction. After it rises, the air becomes cooler and heavier and then settles. Such movements (upward and downward) also cause sidewise movements. These latter are called *winds*.

Experiments. Put a feather over the radiator or the stove. Watch it as it rises toward the ceiling, then settles to the floor. It is following the motion of the air, which, being heated over the radiator, rises; then, being cooled as it comes near the ceiling, settles to the floor, carrying the feather with it.

What the air does for us. Let the children make a list of all the uses of air they can think of. Suggested list:

1. Necessary for the life of people, animals, and plants.
2. Necessary for the fires that heat our homes and cook our food.
3. Carries sound to our ears.
4. Acts as a blanket to keep the earth warm.
5. Carries water from one place to another.
6. Helps make soil.
7. Makes beautiful clouds.
8. Causes our twilights.
9. Gives us all our colors (not including black and white). "How hard and colorless is life without an atmosphere."
10. Moving sidewise (*wind*) runs our windmills.
11. Fills tires, footballs, etc.

How air carries water — evaporation. Wherever there is any water, in whatever form it may be, some of it escapes into the air and is carried off. The warmer air is, the thirstier it is and the more water it takes away. As soon as water escapes into air, the water becomes invisible.

Experiment. Trace a word on the blackboard with a wet cloth on the finger. Watch the word slowly disappear. What becomes of the water? Why do clothes hung on the line become dry? Why do muddy streets dry? What becomes of the water? Tell all the instances you can think of in which air has taken water.

When air refuses to carry water — condensation. When air is cooled, it cannot carry all its load of invisible water. Then the water suddenly becomes visible and takes on many forms. Illustrations: *Dew* on the pitcher of ice water on a warm day. *Steam* on the kitchen windows. The breath, on a cold day.

Forms of water in air: Rain, snow, hail, dew, frost, mist, fog, clouds. Kinds of clouds: Cumulus, the *wool pack.* Stratus, the *layer cloud.* Cirrus, the *mare's tail.* Nimbus, the *storm cloud.*

The following is a simple form of weather record which may be used in primary grades:

Weather Record

DATE	TEMPERATURE *Hot, warm, cool, or cold*	WIND *Direction; gentle or brisk*	CLOUDS *Kind; position*	PRECIPITATION *Rain or snow*	SIGNS OF THE SEASON	SHAPE OF THE MOON

Keep the weather record for a period of a week, three or four times a year.

References

Brigham and McFarlane: *Essentials of Geography*, First Book, pages 46–50.
Dodge: *Elementary Geography*, pages 36–42.
Fairbanks: *Home Geography for Primary Grades*, pages 48–57.
Frye: *New Geography*, pages 44–47.
Giberne: *The Ocean of Air*.
Harrington: *About the Weather*, pages 72–91.
Houston: *Wonder Book of Atmosphere*.
Long: *Home Geography*, pages 42–50.
McMurry and Parkins: *Elementary Geography*, pages 11–16.
National Geographic Magazine, January, 1923.
Parker: *Uncle Robert's Geography*, Vol. 3, pages 71–83.
Payne: *Geographical Nature Studies*, pages 11–24.
Ridgley and Dillon: *Home Geography*, pages 47–52.
Tarr and McMurry: *Geography*, First Book, pages 54–59, 96–98.
Thompson: *Water Wonders Every Child Should Know*.

UNIT 7. THE NEEDS OF LIFE

Time required: 6 to 8 weeks

The aim of this study is to give the child some idea of his dependence upon many people of many lands for the necessaries of life. From his previous "human type" studies, he has seen how the simple needs of those people are supplied from their immediate environment. He now turns with interest to the study of his own needs, and discovers that his environment does not satisfy them entirely, but that materials for food, clothing, shelter, etc., are furnished to his own land from many remote ones.

Introduce the first study by planning a Thanksgiving menu. Then discover where most of the articles of food come from. It is not intended that details of production or manufacture should be stressed, but rather that vivid general impressions should be produced. Appeal to the imagination in discussing the story of coffee, cocoa, bananas, etc. These stories might be given by the child in the first person. See Chamberlain: *How We Are Fed*, pages 178–185, for a type of such a story.

For further material the child may be led to consult the index of his geography textbook. All texts contain excellent pictures, which should be listed for the five different topics. Information may also be gained from adults and from books of general information for children.

These studies may be made the basis for oral and written English lessons; problems in arithmetic will also suggest themselves, with regard to cost, amounts, etc.

It is not expected that all the articles listed should be studied. Select those of inherent interest to the child, or those pertinent to the time or the locality. If advisable, assign selected articles to each child for investigation and reports.

What we eat. Ask the children to make lists of common foods.

1. *Bread.* (Chamberlain: *How We Are Fed*, pages 7–17.

Carpenter: *How the World Is Fed*, pages 12–55. Brigham and McFarlane: *Essentials of Geography*, First Book, pages 2, 16–18. Frye: *New Geography*, page 100. Jones: *Third Reader*, "The Dinner." Shepherd: *Geography for Beginners*, pages 114–120. Knowlton: *First Lessons in Geography*, pages 14–38.) Wheat growing; milling; bread making. Corn. (Frye: *New Geography*, page 98.)

2. *Butter and milk.* (Frye: *New Geography*, pages 104–106. Carpenter: *How the World Is Fed*, pages 107–126. Brigham and McFarlane: *Essentials of Geography*, First Book, pages 18–19. Chamberlain: *How We Are Fed*, pages 41–49. Shepherd: *Geography for Beginners*, pages 153–156. Knowlton: *First Lessons in Geography*, pages 50–59.) Dairying — care of cows; butter making.

3. *Vegetables.* (Chamberlain: *How We Are Fed*, pages 34–42. Carpenter: *How the World Is Fed*, pages 197–214. Knowlton: *First Lessons in Geography*, pages 68–76.) Kinds: where grown; best conditions for each. (Make use here of catalogues of seed houses.)

4. *Sugar.* (Frye: *New Geography*, page 112. Fairbanks: *Home Geography for Primary Grades*, pages 216–220. Chamberlain: *How We Are Fed*, pages 77–86. Carpenter: *How the World Is Fed*, pages 162, 328–345. Shepherd: *Geography for Beginners*, pages 133–137. Knowlton: *First Lessons in Geography*, pages 77–85.) Sugar cane and sugar beets. Where grown; conditions necessary for each. Sugar making.

5. *Coffee, tea, cocoa.* (Brigham and McFarlane: *Essentials of Geography*, First Book, pages 171, 173. Chamberlain: *How We Are Fed*, pages 104–130. Carpenter: *How the World Is Fed*, pages 297–332. Shepherd: *Geography for Beginners*, pages 171–193.) Appearance of plant or tree. Where grown; conditions necessary. Preparation for market. Transportation to our home market.

6. *Pepper and spices.* (Chamberlain: *How We Are Fed*, pages 206–214. Carpenter: *How the World Is Fed*, pages 352–358.) Regions where grown. Preparation for market.

7. *Salt.* (Chamberlain: *How We Are Fed*, pages 91–98. Carpenter: *How the World Is Fed*, pages 345–351.) Mines

of Michigan and Kansas. Method of obtaining salt from the mines.

8. *Meat and fish.* (Fairbanks: *Home Geography for Primary Grades*, pages 221–223. Chamberlain: *How We Are Fed*, pages 18–31. Carpenter: *How the World Is Fed*, pages 73–106, 126–181. Shepherd: *Geography for Beginners*, pages 138–152. Knowlton: *First Lessons in Geography*, pages 39–67.) Kinds: beef, mutton, pork, poultry, fish. Where do they come from to us?

9. *Fruits.* (Frye: *New Geography*, pages 101–102. Chamberlain: *How We Are Fed*, pages 146–173. Carpenter: *How the World Is Fed*, pages 229–290. Shepherd: *Geography for Beginners*, pages 128–132.) Select two or three. Semi-tropical and tropical: oranges, lemons, bananas, pineapples, grapefruit, dates, figs, etc. Where obtained. How shipped to us. Other fruits: apples, peaches, pears, etc. Where obtained.

10. *Miscellaneous.* (Chamberlain: *How We Are Fed*, *see* index. Carpenter: *How the World Is Fed*, *see* index.) Peanuts, maple sugar, cranberries, olives, celery, etc.

Construction Work

Ask the children to collect advertisements of foods, as flour, cocoa, oranges, etc. Many of these contain pictures showing the growth or preparation of the articles advertised. Point out on the globe the places mentioned in the advertisement. Cut small, bright-colored arrows and label each with the name of some food. With little thumb tacks, pin them to the globe in the proper place to show where each food is produced in great quantity. Show how the whole world contributes to furnish our food. Also make use of industrial exhibits from various food-manufacturing companies.

Why do we not raise all our own food? Do we send any of our surplus food products to other countries? What food do we get from the Arabs? the Dutch? What from the Swiss? (Milk chocolate.)

References

Allen: *Industrial Studies: The United States*, pages 125–137.
Bengtson and Griffith: *The Wheat Industry.*
Brigham and McFarlane: *Essentials of Geography*, First Book, pages 1–3.

CARPENTER, F. G.: *How the World Is Fed.*
—— *New Geographical Reader: South America*, pages 293–301.
CARPENTER, F. O.: *Foods and Their Uses.*
CHAMBERLAIN: *How We Are Fed.*
CRISSEY: *The Story of Foods.*
DODGE AND KIRCHWEY: *The Teaching of Geography in the Elementary Schools*, page 236.
FAIRBANKS: *Home Geography for Primary Grades*, pages 216–223.
KIRBY: *Aunt Martha's Corner Cupboard.*
LONG: *Home Geography*, pages 87–95.
RIDGLEY AND DILLON: *Home Geography*, pages 11–23.
SHEPHERD: *Geography for Beginners*, pages 103–193.
SMITH: *The World's Food Resources.*
TARR AND MCMURRY: *Geography*, First Book, pages 1–2.

What we wear. (Tarr and McMurry: *New Geography*, First Book, page 2. Brigham and McFarlane: *Essentials of Geography*, First Book, pages 2–4. Carpenter: *How the World Is Clothed*, pages 7–9. Shepherd: *Geography for Beginners*, pages 60–101. Knowlton: *First Lessons in Geography*, pages 95–127.) Ask the children to make lists of materials used in clothing. Bring to class small pieces of cotton, silk, woolen, and linen cloth. Compare them as to feeling, luster, beauty. Experiment to see which takes up water most readily; to see how each burns when touched with a match. Why do we wear cotton? wool? Why do the girls prefer silk for their hair ribbons? Why do the boys like to wear silk ties? Why are not boys' caps made of silk? Point out on the globe all places named in this study.

1. *Cotton.* Where it comes from. Why it is not grown in all parts of the United States. What the plant looks like. How they grow cotton. How they pick cotton. How they get cotton ready to be made into yarn. How the cloth is made and dyed.

References

ALLEN: *Industrial Studies: The United States*, pages 51–65.
BRIGHAM AND MCFARLANE: *Essentials of Geography*, First Book, pages 3–4, 110–111.
CARPENTER: *How the World Is Clothed*, pages 14–50.
—— *New Geographical Reader: North America*, pages 139–152.
CHAMBERLAIN: *How We Are Clothed*, pages 29–40.

FRYE: *New Geography*, pages 96–97.
MCMURRY AND PARKINS: *Elementary Geography*, pages 111–115.
RIDGLEY AND DILLON: *Home Geography*, pages 55–57.
SHEPHERD: *Geography for Beginners*, pages 62–68.
SMITH: *Human Geography*, Book I, pages 111–118.
TARR AND MCMURRY: *Geography*, First Book, page 2.

2. *Wool.* What outside garments have you that are made of wool? Why are they of wool instead of cotton? What animals give us wool? Where do they live? How are sheep raised and cared for? (The shepherd, the sheepfold, pastures, sheep dog, washing the sheep, shearing the sheep, etc.) How do they get the wool ready to be made into clothing?

References

ALLEN: *Industrial Studies: The United States*, pages 233–251.
BASSETT: *The Story of Wool.*
CARPENTER: *How the World Is Clothed*, pages 73–105.
—— *New Geographical Reader: North America*, pages 62–102.
CHAMBERLAIN: *How We Are Clothed*, pages 41–63.

3. *Silk.* How does silk cloth differ from cotton or woolen cloth? What do you wear that is made of silk? What is the silkworm like? Where do they live in great numbers? What do they eat? How are they cared for? How is the silk thread made ready to be woven into cloth? How is the cloth woven? What is it used for? What use does a miller make of silk cloth? (Chamberlain: *How We Are Clothed*, pages 85–98. Carpenter: *How the World Is Clothed*, pages 105–127.)

4. *Leather.* Where it comes from. What animals give us leather. How leather is tanned. What is made from leather. How leather is made into shoes. Get samples of leather from some shoe man. Notice the kinds used in different parts of a shoe. (Chamberlain: *How We Are Clothed*, pages 84–88, 100–110. Carpenter: *How the World Is Clothed*, pages 147–175. Shepherd: *Geography for Beginners*, pages 85–90.)

5. *Rubber.* What do you wear that is made of rubber? What rubber trees look like. Where they grow. Why we do not grow our own rubber trees. How trees are

tapped. How the liquid is made into *biscuits* so that it can be shipped. How rubber articles are made. (Brigham and McFarlane: *Essentials of Geography*, First Book, page 171. Carpenter: *New Geographical Reader: South America*, pages 343–351. Chamberlain: *How We Are Clothed*, pages 89–99. Carpenter: *How the World Is Clothed*, pages 240–261. Browne: *Peeps at Industries — Rubber.*)

How our houses are made. Materials in our houses. Plan for group work by having one group represent carpenters; others, plasterers, masons, bricklayers, glaziers, painters, paper hangers, plumbers. Each group is responsible for information as to materials and methods used in its work.

1. *Lumber.* Use in house; where found; cutting and trimming tree; transportation of logs; milling. A trip to the lumberyard is suggested. (Brigham and McFarlane: *Essentials of Geography*, First Book, pages 21–23. Chamberlain: *How We Are Sheltered*, pages 72–92. Bassett: *Story of Lumber.*)

2. *Bricks and cement.* Use in house; from what made; method of making. (Chamberlain: *How We Are Sheltered*, pages 93–116.)

3. *Stone.* How quarried; preparation for use. (Fairbanks: *Home Geography for Primary Grades*, pages 112–115. Chamberlain: *How We Are Sheltered*, pages 101–110.)

4. *Glass.* From what made; method of making. (Chamberlain: *How We Are Sheltered*, pages 119–122.)

References

Allen: *Industrial Studies: The United States*, page 258.
Brigham and McFarlane: *Essentials of Geography*, First Book, pages 4–5.
Carpenter: *How the World Is Housed.*
Chamberlain: *How We Are Sheltered*, pages 72–122.
Dodge: *Elementary Geography*, pages 7–10.
Fairbanks: *Home Geography for Primary Grades*, pages 112, 159–166, 199–207.
Keller and Bishop: *Commercial and Industrial Geography*, pages 129–340.
Knowlton: *First Lessons in Geography*, pages 128–168.
Long: *Home Geography*, pages 127–128.

RIDGLEY AND DILLON: *Home Geography*, pages 66–73.
SHEPHERD: *Geography for Beginners*, pages 3–39.
TARR AND MCMURRY: *Geography*, First Book, pages 3–4.

What materials do the Eskimos use for house building? the Arabs? the black people of Africa? Why are our houses built so much more carefully than theirs? What are the chief differences between our homes and those of the Swiss? People who have not advanced so far in civilization as we have (that is, who have not discovered so many needs), use only the materials in their neighborhood for their houses. We use materials from many parts of the world. Account for this.

What warms our homes?

1. *Coal.* Where found. (Mention places and locate them on the globe.) Kinds of coal; how mined. (Chamberlain: *How We Are Sheltered*, pages 123–138.)

2. *Oil, gas, and gasoline.* Where found; how obtained; uses. (Chamberlain: *How We Are Sheltered*, pages 150–156.)

3. *Wood.* Kinds used as fuel.

4. *Other fuels.* Cobs, etc.

References

BRIGHAM AND MCFARLANE: *Essentials of Geography*, First Book, pages 24–25.
CARPENTER: *New Geographical Reader: North America*, pages 283–291.
CHAMBERLAIN: *How We Are Sheltered*, pages 123–138.
FRYE: *New Geography*, pages 107–109.
KNOWLTON: *First Lessons in Geography*, pages 169–178.
MCMURRY AND PARKINS: *Elementary Geography*, pages 77–78.
RIDGLEY AND DILLON: *Home Geography*, pages 74–76.
SHEPHERD: *Geography for Beginners*, pages 40–59.
TARR AND MCMURRY: *Geography*, First Book, pages 135–136.

How we travel.

1. *Roads.* Why good roads are needed; kinds of roads (dirt; log or corduroy; paved with asphalt, brick, stones, blocks of wood, concrete); grading of roads; how roads are kept in repair; automobile highways in your vicinity

2. *Means of transportation.* Horses, automobiles, airplanes, airships, motorcycles, bicycles, boats, railroad trains (parts of passenger train; freight cars: kinds, uses).

References

CHAMBERLAIN: *How We Travel*, pages 23–45, 101–130, 138–182.
DODGE: *Elementary Geography*, pages 10–13.
FAIRBANKS: *Home Geography for Primary Grades*, pages 171–176.
KNOWLTON: *First Lessons in Geography*, pages 198–218.
RIDGLEY AND DILLON: *Home Geography*, pages 120–123.
ROCHELEAU: *Geography of Commerce and Industry*, pages 23–32.
TAPPAN: *Travelers and Traveling.*

Do the Eskimos have good roads? Compare our means of travel with those of the Eskimos, Arabs, Swiss, Black Men of Africa, etc.

UNIT 8. OUR TOWN

Time required: 4 weeks

(Tarr and McMurry: *New Geography*, pages 67–75. Fairbanks: *Home Geography for Primary Grades*, pages 209–215. Dodge: *Elementary Geography*, pages 9–13. Ridgley and Dillon: *Home Geography*, pages 98–120.)

For small towns and villages. Extent, boundaries, surface features (hills, valleys, streams), streets and how they are kept in repair, railroads and railroad stations, state roads or highways through the town, churches, school buildings, electric-light plant, city water system, telephone office, fire department, hotels, banks, newspapers, largest stores and what is sold there, elevators, lumberyards, blacksmith shops, garages, manufacturing plants (as ice plant, cider factory, canning factory, sugar refinery, cement works, brickyards, flour mill, bakeries, textile mills, etc.).

For larger towns. (Additional topics.) (*a*) Public utilities, sewage system, parks, playgrounds, means of transportation, fire stations, police stations, hospitals. (*b*) Factories (garment, implement, food), sugar refineries, etc. (*c*) Large wholesale houses, commission houses, etc.

Rural school district. Extent, boundaries, surface features (hills, valleys, streams); state roads and other highways; farmsteads included, extent and equipment of each (buildings, machinery, etc.); acreage in corn, small grain, beets, etc.; acreage in pasture, woodland, and orchards; stock raising in the district; routes to neighboring market towns; number of homes; population per square mile; church and school buildings, etc. Model the school district on sand table. (Ridgley and Dillon: *Home Geography*, pages 25–27, 86–92.)

UNIT 9. MAP READING

Time required: 2 or 3 weeks

A map is a shorthand method of locating and describing places. This is done by means of symbols, usually lines, dots, squares, or colored areas, which do not look like the features they locate, but merely represent them. Children do not understand these symbols instinctively, as they do not think in symbols. In introducing the symbolism of maps to the child, begin with objects so simple in themselves that the child is free to think only of the symbol. Such an order as this might be followed:

1. Map the child's desk, showing objects on it which are unlike in form, such as inkwell, ruler, books, etc. Draw the outline of the desk top; then select the symbols for the objects on the desk, as a small circle for the inkwell, a straight line for the pencil, a rectangle for the books, a longer, narrower rectangle for the ruler. Show the children that these symbols do not resemble the objects but stand for them. Often they represent the shape of the space the objects cover. Criticize the maps as to proportionate size and placing of the symbols. Call the attention of the children to the fact that all the desks are the same size, but all the maps they have made are not the same size. Thus show the need for scale in map making. Decide on a scale, as one inch on the map equals six inches on the desk; then make a second map of the desk to scale, using rules.

2. Map the schoolroom, using symbols selected by the children for desks, benches, stoves or radiators, platform, and doors. Do not attempt to show small pieces of furniture, windows, or wall decorations. Show nothing that does not touch the floor, for the map is a representation of the floor plan. Draw to scale, letting one inch on the map equal two or four feet in the room. Show that this map of the schoolroom is not a picture.

3. Map the school ground, or some part of it, selecting symbols for trees, walks, fountain, playground apparatus, etc.

4. Let each child map his home grounds, if it seems advisable.

5. It now becomes necessary to introduce the child to the symbols used in wall and textbook maps. To make these clear, begin with a sand modeling of a seacoast with its hinterland. Include the following features in your modeling: a bay, a peninsula, a cape, an island, mountains, valleys, a river, a lake, a town, and a railroad. After the model has been made and discussed, tell the story of James, who lives in the town represented here and who wishes to write to his cousin and tell him just where he lives and what his surroundings are. So he draws a map of the region, as a shorthand method of giving this information to his cousin. Select the symbols which James uses in his map. He will need symbols for mountain, lake, river, lowland, town, railroad, etc. Use the symbols generally employed in wall maps; that is, lines and colors.

Now turn to the clearest and simplest physical map of North America that you can find in your textbook. Discuss the meaning of the colors: blue, green, yellow, brown, red, black. Then ask the children to find a mountain range, a lake, a lowland, a river, a bay, a peninsula, a plateau, an even coast line, an irregular coast line, an island which is mountainous, etc.

To give further reality to map symbols, select from your collection of pictures views of certain physical features. As you present each to the class, have them touch the proper symbol, on the textbook map, for river, mountains, wide plains, shore line, etc. After you are sure the connection between the picture and the symbol is made instantly, tell the children you wish them to be more exact in locating the proper symbol. For instance, if you show a picture of a winter scene on a river, should they point to a river in Mexico? If the picture shows a wide plain with great corn fields, would a plain in northern Canada be meant? etc.

This work with the pictures may occupy several periods. It is exceedingly important, in the early stages of map reading, to see that each child is getting thought from the

mapped page. If he is too conscious of the symbols (such as lines, colored areas, etc.), so that they become the end and aim of his map reading, turn again to the sand table, to pictures, and to real scenes around him. Keep him away from much use of wall maps or textbook maps, until you are sure he can come to the map with *interpretation ideas* instead of *symbol ideas*. He will soon catch the trick of *seeing through* the symbol to the *thought* behind the symbol, and that is real map reading.

General suggestions.

1. Try to free the child of the idea that a place looks like the map of the place. The earth does not look like a map at all.

2. Keep the same directions on the map and on the sand table. Make all first maps on a horizontal surface. If possible, draw one map on the floor, to keep the right idea of direction. Later, hang the maps on the north wall and show that north is now the top of the map and south the bottom. East and west have not changed. Try to avoid giving the impression that north is *up*.

3. Do not begin to develop map making until the child has in mind something to map.

4. Introduce wall maps after most symbols are clearly understood. Present physical maps first. Avoid the overcrowded political map.

5. Try to put imagination into map reading; to see mountains, prairies, busy city streets, etc. Test frequently in map reading by having some child describe an imaginary map journey.

6. Point to places on the map which have been studied in home and world geography.

7. Plan *distance* and *size* drills on wall maps. For each continent select a conspicuous unit by which estimates of size can be easily made.

In judging distances, convenient round numbers should be used, as, for instance:

Europe: Italian Peninsula, 850 miles long. Scandinavian Peninsula, 1000 miles long. Spain, 500 miles square.

North America: Florida, 400 miles long.

Suggested estimates required. If the Scandinavian Peninsula is about 1000 miles long, what is the entire length of Europe? the width? If Italy is about 850 miles long, how long is Great Britain? etc.

References

Brigham and McFarlane: *Essentials of Geography*, First Book, pages 66–70.

Frye: *New Geography*, pages 55–56.

McMurry and Parkins: *Elementary Geography*, pages 32–35, 174.

Ridgley and Dillon: *Home Geography*, pages 90–94, 112–114.

Smith: *Human Geography*, Book I, pages 25–28.

B. THE WORLD OUTSIDE

UNIT 1. INDIANS, AND HOW THEY LIVE

Time required: 2 to 4 weeks

General suggestions for the study of a human type. Work out the study so fully that the child has clear-cut mental pictures of each type of life. Many details must be presented to make permanent impressions. Select these details with care, making use of those which are most significant and omitting all which might prejudice the child against the people he is studying. These lessons must be largely conversational. Try to develop in yourself the power to describe. "Pictures tell what is seen in these different lands; you must tell what is *felt* there."

An outline for the teacher. Appearance, dress, food, houses (of skin, bark, mud, etc.), customs, skill in hunting, games, arts and industries, family life, training of children, ideals of behavior; incidents in nomadic life of the prairie Indians.

Interesting subjects. An Indian village. Indian blankets, pottery, bead work, etc. What the Indians have given to us (corn, pumpkins, etc.) Indian picture writing. How an Indian builds a boat. The medicine man. A war dance. Stories of Indian life in early days.

Construction Work

(*a*) Plan a sand-table scene of a small Indian village. It may include wigwams, a tiny canoe in the river, deer and buffalo hiding behind hills (of sand or rocks), small figures of Indians (cut from construction paper). Mark off little irregular spaces near the village for patches of corn and pumpkins. (*b*) Plan a simple Indian costume for use in dramatization in geography.

References

BAYLISS: *The Little Cliff Dweller.*

BRIGHAM AND MCFARLANE: *Essentials of Geography,* First Book, pages 85–88.

BROOKS: *The Story of the Red Children.*

CARPENTER: *Around the World with the Children*, pages 85–92.
CARROLL: *Around the World*, Book 3, pages 1–46.
CHAMBERLAIN: *How We Are Sheltered*, pages 15–31.
CHANCE: *Little Folks of Many Lands*, pages 7–23.
CURTIS: *Indian Days of the Long Ago.*
EASTMAN: *Indian Boyhood.*
—— *Indian Child Life.*
—— *Indian Scout Talks.*
FRYE: *New Geography*, pages 4–5.
JUDD: *Wigwam Stories.*
MAR: *Indian Boys and Girls.*
MORRIS: *Home Life in All Lands*, Book 1.
PERDUE: *Child Life in Other Lands*, pages 1–25.
PRATT: *Legends of Red Children.*
SCHWARTZ: *Five Little Strangers*, pages 7–39.
SHAW: *Big People and Little People of Other Lands*, pages 103–110.
SMITH: *Human Geography*, Book I, pages 6–12.
STARR: *American Indians.*
TARR AND MCMURRY: *Geography*, First Book, pages 2–3.
U.S. Department of the Interior, Office of Indian Affairs. Bulletin No. 1, "Primitive Agriculture of the Indians."
Bulletin No. 2, "Bibliography of Indian Legends."
Bulletin No. 4, "Indian Art and Industries."
Bulletin No. 13, "Indian and Pioneer Stories Suitable for Children."
WADE: *Our Little Indian Cousin.*
—— *Ten Little Indians.*

UNIT 2. THE ARAB, AND LIFE IN THE DESERT

Time required: 2 to 4 weeks

Point to Arabia. Then locate Arabia and the Sahara on the globe.

The people. (McManus: *Our Little Arabian Cousin*, pages 1–39. Andrews: *Seven Little Sisters*, pages 23–42.) Appearance, dress, houses, furniture, food, customs, games, arts, industries.

Plant life. (For the teacher: Salisbury, Barrows, and Tower: *Elements of Geography*, pages 499–500.) Characteristics of desert vegetation.

Special study of the *date palm.* (McManus: *Our Little Arabian Cousin*, pages 83–91.)

1. *Appearance of tree.*

2. *Fruit.* (*a*) How picked. (*b*) How packed to ship to us. (*c*) Value as food to the Arabs and to us.

Animal life. (Salisbury, Barrows, and Tower: *Elements of Geography*, pages 500–501.) Characteristics of desert animals.

Special study of camel. (Chamberlain: *How We Travel.*)

1. *How fitted for the desert.* Feet, nostrils, eyes, skin, hump, water pouch.

2. *Kinds of camels.* Racing and freighting.

The desert itself. (Salisbury, Barrows, and Tower: *Elements of Geography*, pages 499–507.)

1. *Surface.* Mountains, valleys, plains, sand dunes; appearance and movement of dunes.

2. *Climate.* Intensely hot days and cool nights; rainfall scanty and usually torrential; strong winds.

3. *Oases.* (*a*) Causes of; appearance. (*b*) A town in an oasis. (McManus: *Our Little Arabian Cousin*, pages 75–93.) Markets, streets, houses, mosques.

4. *A journey in the desert.* (McManus: *Our Little Arabian Cousin*, pages 57–72. Chamberlain: *How We Travel.*) (*a*) Equipment of camels. (*b*) Supplies: tents, blankets, food, water. (*c*) A sandstorm. (*d*) Danger of attack by unfriendly Arabs. (*e*) Deceived by a mirage. (*f*) Finding an oasis. (*g*) Preparation for camp.

5. *Trade.* What do the people of the desert give us? What do we send to them? How would a child of the desert be impressed if he were to visit your home state?

Construction Work

Begin construction work as soon as interest is aroused and there is some notion of what to construct and a desire to construct it.

Make a desert scene on the sand table. Heap the sand in mounds, with wavy indentations on them, to represent dunes. Use sharp-edged stones, massed with sand, to show the jagged line of the mountains in the background. Line a tin cup with putty and pebbles, fill it with water, and set it down in the sand to represent a well in an oasis. Fringe gray-green construction paper to make the spreading top of the date palm and attach to the end of a stick. Then wrap the stick in raffia to show the brown bark. Cut from paper small figures of camels, horses, Arabs. A piece of brown cambric three inches square will do for the tent covering. Use small sticks for tent poles. Try to let the effect be one of immensity and loneliness.

Combine with language work by making these geography studies material for oral and written language work.

References

ALLEN: *Children of the Palm Lands*, pages 115–133.
ANDREWS: *Seven Little Sisters*, pages 23–42.
BRIGHAM AND MCFARLANE: *Essentials of Geography*, First Book, pages 7–8.
CARPENTER: *Around the World with the Children*, pages 93–103.
CHAMBERLAIN: *How We Travel*, pages 93–100.
CHANCE: *Little Folks of Many Lands*, page 67.
FRYE: *New Geography*, pages 9–11.
GRIMES: *Tara of the Tents.*
MCMANUS: *Our Little Arabian Cousin.*
MIRICK AND HOLMES: *Home Life around the World*, Chapters 8–9.
MORRIS: *Home Life in All Lands*, Book 2, page 145; Book 3, pages 79–102.
SHAW: *Big People and Little People of Other Lands*, pages 25–36.
SMITH: *Human Geography*, Book I, pages 286–293.
TARR AND MCMURRY: *Geography*, First Book, pages 7–19.

For the Teacher

Cleveland Course of Study in Geography.
FURLONG: *The Gateway to the Sahara.*
HUNTINGTON: *Asia; A Geography Reader*, pages 44–51.
PHILLIPPS: *In the Desert.*
SALISBURY, BARROWS, AND TOWER: *Elements of Geography*, pages 499–507.
SCHIMPER: *Plant Geography*, page 605.
SEMPLE: *Influences of Geographic Environment.*
ZWEMER: *Arabia.*

UNIT 3. THE ESKIMO, AND LIFE IN THE NORTHLAND

Time required: 2 to 4 weeks

Greenland, the country of the Eskimo. Imagine a country almost entirely covered by an immense ice sheet, except for a narrow margin a few miles wide along the shore. Here are many deep, narrow bays, called fiords, with snow-covered mountains rising as steep cliffs on either side. Icebergs, broken off from the glaciers, and great ice floes float about in the clear, deep waters of the fiords and in the open seas beyond.

In winter the snow covers everything. In summer the rocks are bare and gray, with occasional patches of fresh green moss. On sunny slopes there are many beautiful flowers — daisies, violets, poppies, dandelions, roses. The sun shines all the time in summer, even at midnight. It never rises high in the sky; at noon, it is no higher than our sun at schooltime on a summer morning. Is it as warm when the sun is low in the sky as when it is high? In winter the sun does not shine at all, but the stars are out all day long.

The people. Appearance, dress, food, houses (winter and summer), arts (boat making), games and sports.

Animal life. Polar bear, dog, reindeer (or caribou), musk ox, whale, seal, walrus, birds, fish.

Plant life. Trees, shrubs, vines, mosses and lichens, flowers.

Construction Work

Winter scene. Cover the sand table with snow (cotton). Make an *igloo*, or snow house, of paper or clay. Make figures of reindeer, musk ox, polar bear, seal, and several Eskimos with dogs and sled.

Summer scene. Model in sand some high mountains at the back of the sand table. Let these descend to a coastal plain with a deeply indented shore line. Let fiords run well back into the land. Cover all mountain slopes and a part of the plain with cotton for snow. Let one glacier extend to the sea at the head of the fiord. Near the shore, place a paper representation of a summer tent or hut. Use the same figures of animals and Eskimos as in the winter scene. Cut a long narrow boat from brown paper,

put an Eskimo figure in it, and place it in the fiord. Make icebergs of bluish white paper, to stand out from the fiords. Bits of moss and bright-colored tissue paper will represent the mossy slopes dotted with gay flowers. Let the scene show that these Eskimos live from the sea.

References

ANDREWS: *Each and All*, pages 1–25.
—— *Seven Little Sisters*, pages 9–27.
BRIGHAM AND MCFARLANE: *Essentials of Geography*, First Book, pages 5–6.
CARPENTER: *Around the World with the Children*, pages 6–21.
CARROLL: *Around the World*, Book 1, page 140.
CHAMBERLAIN: *How We Travel*, pages 72–85.
FRYE: *New Geography*, pages 6–8.
HORTON: *The Frozen North*.
MCMURRY AND PARKINS: *Elementary Geography*, pages 42–46.
PEARY, J.: *The Snow Baby*.
PEARY, R. E.: *Snowland Folk*.
PERDUE: *Child Life in Other Lands*, pages 25–45.
PERKINS: *The Eskimo Twins*.
SCANDLIN: *Hans, the Eskimo*.
SCHWATKA: *Children of the Cold*.
SHAW: *Big People and Little People of Other Lands*, pages 62–69.
SMITH, J. R.: *Human Geography*, Book I, pages 1–6.
SMITH, M. E. E.: *Eskimo Stories*.
TARR AND MCMURRY: *Geography*, First Book, pages 5–7.
WADE: *Our Little Eskimo Cousin*.

For the Teacher

HARTWIG: *The Polar World*.
PEARY: *The North Pole*.
—— *Northward over the Great Ice*.
—— *My Arctic Journal*.
SALISBURY, BARROWS, AND TOWER: *Elements of Geography*, pages 214–225.
STEFANSSON: *My Life with the Eskimo*.
WRIGHT AND UPHAM: *Greenland Ice Fields and Life in the North Atlantic*.

UNIT 4. THE SWISS, AND LIFE IN THE MOUNTAINS

Time required: 2 to 4 weeks

The people. Appearance, dress, houses, food, customs, sports and games, means of transportation, industries (haying, lumbering, butter and cheese making, manufacture of watches, cuckoo clocks, music boxes, toys, laces, milk chocolate, etc.).

The country where the Swiss live. Point out Switzerland on the globe. Beautiful scenery — mountains, valleys, passes, lakes, glaciers, rivers, waterfalls, alps. Distinguish between an *alp* and the *Alps*. Climate — winds, snowfall, temperatures.

Animal life. Chamois, sheep, goats, cattle, hares, marmots, birds.

Interesting topics. St. Bernard dogs. A day with a goatherd, a shepherd, and a cowherd. My summer on an alp. The Alpine horn. Yodeling.

Supplementary stories and poems. *William Tell.* Montgomery: *Arnold Von Winkelried.* Byron: *The Prisoner of Chillon* and *The Lion of Lucerne.* Longfellow's poem to Agassiz on his fiftieth birthday. Tennyson: *The Bugle Call.*

Comparisons. What do the Swiss send to us? What do we send to them? How would a Swiss farm differ from a farm in your community? Name three things which you can do that the Swiss boy or girl cannot do. Name three things which the Swiss boy or girl can do in Switzerland that you cannot do. Suggest all the differences you can think of between living on a plain, as most of us do in our country, and living among high mountains, as the Swiss do.

Construction Work

Model in sand a scene in Switzerland. Make jagged, snow-covered peaks, with occasional small flat alps, or mountain meadows. Cover these alps with moss or grass. Have many levels to show the great irregularity of surface. Use blue construction paper to represent mountain lakes, and

a long, ragged strip of cotton to show a glacier descending into the valley. Represent a river as beginning where the glacier ends. Make a very small paper house (two inches square) with a red roof. Paste tiny gravel on the roof to represent the boulders used to keep the wind from blowing the roof away. Cut out very small figures of goats and cows. Put the goats on the highest meadows.

References

ANDREWS: *Seven Little Sisters*, pages 43–56.
BRIGHAM AND MCFARLANE: *Essentials of Geography*, First Book, pages 18–20, 201–203.
CAMPBELL: *Story of Little Konrad, the Swiss Boy.*
CARPENTER: *Around the World with the Children*, pages 104–111.
CARROLL: *Around the World*, Book 2, page 129.
DODGE: *Elementary Geography*, pages 167–169.
FRYE: *New Geography*, pages 16–17, 213–214.
MCMURRY AND PARKINS: *Elementary Geography*, pages 219–223.
MIRICK AND HOLMES: *Home Life around the World.*
MORLEY: *Donkey John of Toy Valley.*
PERKINS: *The Swiss Twins.*
SHAW: *Big People and Little People of Other Lands*, pages 77–82.
SMITH: *Human Geography*, Book I, pages 246–252.
SPYRI: *Heidi.*
—— *Little Miss Grasshopper.*
—— *Moni, the Goat Boy.*
TARR AND MCMURRY: *Geography*, First Book, pages 210–212.
WADE: *Our Little Swiss Cousin.*

For the Teacher

ALLEN: *Geographical and Industrial Studies: The New Europe*, pages 246–251.
CARPENTER: *New Geographical Reader: Europe.*
CHAMBERLAIN: *The Continents and Their People: Europe*, pages 209–225.
DOLE: *The Spell of Switzerland.*
FINNEMORE: *Peeps at Many Lands: Switzerland.*
LUBBOCK: *The Scenery of Switzerland and Causes to Which It Is Due.*
MILL: *International Geography.*
SYMONDS: *Our Life in the Swiss Highlands.*
WEBB: *Switzerland of the Swiss.*

UNIT 5. THE DUTCH, AND LIFE IN COASTAL LOWLANDS

Time required: 2 to 4 weeks

The country of the Dutch — Holland. Dikes, polders, dunes. Dikes are walls of earth built to keep the sea from coming over the low land. Often they are built out into the sea, till they enclose a strip of land covered by shallow water. Then the water is pumped off and a low flat stretch of land is uncovered. This is divided into fields, which are called *polders*. Windmills are kept pumping day and night to remove the water that collects in these low fields.

The people. Appearance, dress, shoes, houses, furniture, food, customs, sports, arts.

Industries.

1. *Dairying.* Care of cattle. Butter and cheese making. Compare with methods used in your neighborhood.
2. *Flower-bulb raising.*

Means of transportation. Canals and canal boats. Dogs used to pull carts.

Interesting topics. A leak in the dike. A Dutch windmill. Skating in Holland. Dutch cattle (Holstein). Canals as streets. Dutch cleanliness ("Old Dutch Cleanser"). A Dutch dairy barn. How wooden shoes are made. What would a boy or girl from Holland think of your home? What do the Dutch send to us? What do we send to them?

Construction Work

With sand and narrow strips of blue paper, represent the low polders and the canals. Show a little of the shore line and mold a dike along the shore, several inches higher than the polders behind it. Let the canals intersect at right angles, thus dividing the land into small square fields. From paper or clay, make windmills, bridges, black and white cows, people. The effect may be rather overcrowded, to give the impression of density of population.

References

Brigham and McFarlane: *Essentials of Geography*, First Book, pages 193–194.

Carroll: *Around the World*, Book 1, pages 102–123.

CARPENTER: *Around the World with the Children*, pages 117–127.
CHAMBERLIN, J. F.: *How We Are Clothed*, pages 15–19.
CHAMBERLAIN, J. F. AND A. H.: *The Continents and Their People: Europe*, pages 67–82.
CHANCE: *Little Folks of Many Lands*, pages 37–52.
FRYE: *New Geography*, pages 210–211.
MCDONALD AND DALRYMPLE: *Marta in Holland.*
MCMANUS: *Our Little Dutch Cousin.*
MCMURRY AND PARKINS: *Elementary Geography*, pages 224–227.
PERKINS: *The Dutch Twins.*
SHAW: *Big People and Little People of Other Lands*, pages 83–91.
SMITH, J. R.: *Human Geography*, Book I, pages 237–239.
SMITH, M. E. E.: *Holland Stories.*
TARR AND MCMURRY: *World Geography*, pages 392–395.

For the Teacher

ALLEN: *Geographical and Industrial Studies: The New Europe*, pages 231–244.
AMICIS: *Holland and Its People.*
CARPENTER: *New Geographical Reader: Europe.*
DODGE: *Hans Brinker; or, The Silver Skates.*
GRIFFIS: *Brave Little Holland.*
JUNGMAN: *Peeps at Many Lands: Holland.*
MILL: *International Geography.*

UNIT 6. THE BLACK MAN OF EQUATORIAL AFRICA

Time required: 2 to 4 weeks

The country of the Black Man. West Equatorial Africa around the Gulf of Guinea. Always hot; heavy rainfall; two seasons, a rainy and a dry.

Vegetation. Very luxuriant. Banana, coconut, oil palm, manioc, plantain, bamboo, rubber tree, baobab.

Animals. Elephant, gorilla, hippopotamus, rhinoceros, leopard, lion, zebra, crocodile, chimpanzee, etc. (The land of circus animals.) See Rogers: *Wild Animals Every Child Should Know.*

Insects. White ant, tsetse fly.

People. (Andrews: *Seven Little Sisters,* pages 71–84. Wade: *Our Little African Cousin.* Mulets: *Story of Akimakoo, an African Boy.* Schwartz: *Five Little Strangers,* pages 72–102.) Appearance, dress, houses, food, customs, skill in hunting.

Additional subjects. What the black man gives to us: rubber, ivory, bamboo, wood for our finest furniture, palm-nut oil, coconuts, etc. Scenes in an African village. How bread is made from roots (manioc). How they make gardens in Equatorial Africa. Stories of Livingstone and Stanley.

Construction Work

Make booklets in the shape of the continent of Africa. Paste in pictures, or make drawings, of (*a*) scenes in the life of the people, (*b*) the most interesting plants and animals.

On the sand table represent an African scene, showing the dense vegetation, the *beehive* houses in the clearing, some animals in the forests or along the stream. Use animals from a Noah's Ark or cut them from paper.

References

ANDREWS: *Each and All,* page 27.

—— *Seven Little Sisters,* pages 71–84.

BRIGHAM AND MCFARLANE: *Essentials of Geography,* First Book, page 7.

CARPENTER: *Around the World with the Children,* pages 22–40.

—— *New Geographical Reader: Africa.*

CHADWICK AND LAMPREY: *The Alo Man* (Children of the World Series).
CHANCE: *Little Folks of Many Lands*, page 53
DU CHAILLU: *In the Land of the Deep Forest.*
—— *Lost in the Jungle.*
—— *The World of the Great Forest.*
—— *Wild Life under the Equator.*
FRYE: *New Geography*, pages 11–13.
GOLDING: *Story of Livingstone.*
MCMURRY AND PARKINS: *Elementary Geography*, pages 205–206.
MORRIS: *Home Life in All Lands*, Book 1.
MULETS: *Story of Akimakoo, an African Boy.*
ROGERS: *Wild Animals Every Child Should Know.*
SCHWARTZ: *Five Little Strangers*, page 72.
SMITH: *Human Geography*, Book I, pages 296–302.
TARR AND MCMURRY: *Geography*, First Book, pages 3–4.
WADE: *Our Little African Cousin.*

UNIT 7. THE JAPANESE

Time required: 2 to 4 weeks

The country of the Japanese. An island empire. Mountains, rivers, waterfalls, volcanoes, earthquakes. The beautiful sacred mountain, Fujiyama.

The people. Appearance, dress (shoes, kimonos, hats, raincoats, charms, and decorations), houses (foundations, walls, partitions, shutters, furniture, method of heating, decorations), food (rice, fish, tea, cakes, vegetables), customs (salutations, manners at table, ancestral worship, etc.), festivals (feast of dolls, festival of banners, of cherry blossoms, of chrysanthemums, feast of the New Year), means of travel (jinrikishas, chairs, etc.), industries (rice growing, tea culture, silk manufacture, etc.), games and sports, schools, temples.

Interesting topics. My visit to a rice plantation. My visit to a tea plantation. A birthday celebration in Japan. Sights in a city street. Why are Japanese children so happy?

Construction Work

Make booklets in the form of a Japanese fan, a lantern, a Japanese lady in a kimono, etc. Paste in pictures and make drawings, as in the African booklet. If possible, secure a good view of the sacred mountain, Fujiyama.

References

BRIGHAM AND MCFARLANE: *Essentials of Geography*, First Book, pages 231–232.
CAMPBELL: *Story of Little Metzu, the Japanese Boy.*
CARPENTER: *Around the World with the Children*, pages 43–58.
CHAMBERLAIN: *How We Travel*, pages 46–57.
CHANCE: *Little Folks of Many Lands*, pages 95–111.
DODGE: *Elementary Geography*, pages 210–211.
FRYE: *New Geography*, pages 235–236.
GRIFFIS: *What I Saw in Japan.*
MCDONALD AND DALRYMPLE: *Une San in Japan.*
MCMURRY AND PARKINS: *Elementary Geography*, pages 276–279.
MORRIS: *Home Life in All Lands*, Book 1.
PERKINS: *The Japanese Twins.*
SHAW: *Big People and Little People of Other Lands*, pages 15–24.
SMITH: *Human Geography*, Book I, pages 305–313.
TARR AND MCMURRY: *Geography*, First Book, pages 224–227.
WADE: *Our Little Japanese Cousin.*

UNIT 8. THE OCEAN

Time required: 4 weeks

Appearance. As the ocean is remote from many American children, it is necessary to make a special effort to stimulate imagination regarding its appearance. Points to stress: wideness, restlessness, changing colors, dashing of the waves on the shore. Contrast the ocean surface with that of the land — no hills, valleys, mountains, roads, or cities — just water.

The children will be eager to consult their friends who have seen the ocean, and to secure personal descriptions from them. Pictures will help greatly, if they are supplemented by vividly worded interpretations. Ask the children to search everywhere among their books for description and narration about the sea. As short extracts in prose or verse are read to the children, ask them to jot down any phrases they think are particularly delightful. Some of these they may wish to use later in their talks to the class.

Size. Estimated in terms of the number of days it takes to cross by any well-known route. Study names of oceans and comparative sizes.

With a string, measure the width of the Atlantic and Pacific — on the globe. Ask the children to name any foreign port they know: then measure the water distance to that port from New York, or San Francisco. Give an opportunity for each child to mention persons he knows who have traveled on the ocean, to tell where they went, and to point out the route on the globe; and if possible, to mention the time it took the traveler to go from port to port.

Movements. (Very general.) Wind waves, tides, currents. Describe, but do not try to explain these movements. Note their effect on man. Tell some interesting incidents about the tide.

Travel on the sea. (Tarr and McMurry: *New Geography*, pages 47–53. Brigham and McFarlane: *Essentials of Geography*, First Book, pages 43–44. Frye: *New Geography*, pages 51–52. Allen: *The New Europe*, pages 17–39. Cham-

berlain: *How We Travel*, pages 111–130. Carpenter: *New Geographical Reader: Europe*, pages 19–27. Tappan: *Travelers and Traveling*, page 95. Smith: *Human Geography*, Book I, pages 219–222. McMurry and Parkins: *Elementary Geography*, pages 48–54.)

1. *A modern steamship.* Size, decks, arrangement and equipment of cabins, smokestacks, place for engine, place for cargo, the captain's bridge, the *crow's nest*, ventilators, lifeboats, etc. The sailors, and their work.
2. *Other sea craft.* Sailing boats, motor boats, submarines, warships.
3. *Provisions for safety in sea travel.* Lighthouses, life-saving stations, lifeboats, wireless apparatus, life preservers, fog horn, bell buoys, searchlights, work of the pilot, etc. (Youth's Companion Series: *By Land and Sea.*)
4. *Interesting sights.* Passing steamers, icebergs, whales spouting, flying fish, sea gulls and other sea birds, distant islands, etc.
5. *Ports and harbors.* What makes a harbor safe for large boats? (Deep water, protection from the wind, freedom from fog and ice, plenty of anchorage and wharfage room.) Show the need for a place for ships to *tie up*, by comparing with the need for parking space in our towns and cities.

Sea life. In what kind of waters found? How obtained? How used? Whale, seal, shark, cod, salmon, mackerel, oyster, herring, sponge, coral. (Select three or four for study.)

The sea as a builder. Chalk, limestone, sandstone, etc.

Construction Work

Model in sand a shore line, with several shallow indentations and one deep bay. Use blue construction paper to represent the water. Here, represent a port with wharves (made of construction paper). On the wharves have small cards labeled with names of articles carried by different ships as cargo: cotton, tea, coffee, wheat, meats, cloth, coal, wool, chemicals and dyes, cabinet woods, fruits, etc. Make boats, islands, lighthouses, etc., from construction paper. Discuss the loading and unloading of ships, and

trace on the globe the probable journey of each ship after it is loaded. Do not hesitate to try to represent these features even though your first attempt does not satisfy you. Merely suggest the details, and let the child's imagination fill in the rest.

Make a booklet called *The Book of the Ocean* in shape of shell, fish, boat, lighthouse, etc. Paste in pictures or make drawings illustrating the ocean and ocean life. The children should select a name for each picture that is used. Add children's write-ups about travel on the sea.

References

ALLEN: *Geographical and Industrial Studies: The New Europe*, pages 18–39.
ANDREWS: *The Stories Mother Nature Told*, pages 63–84.
BRIGHAM AND MCFARLANE: *Essentials of Geography*, First Book, pages 42–44.
CARPENTER: *New Geographical Reader: Europe*, pages 19–27.
CHAMBERLAIN: *How We Travel*, pages 122–130.
CROWNINSHIELD: *All among the Lighthouses.*
DODGE: *Elementary Geography*, pages 55–59.
FRYE: *New Geography*, pages 40–44.
GIBERNE: *The Mighty Deep.*
HOWDEN: *The Boy's Own Book of Steamships.*
MCMURRY AND PARKINS: *Elementary Geography*, pages 48–54.
SMITH: *Human Geography*, Book I, pages 219–222.
TARR AND MCMURRY: *Geography*, First Book, pages 44–54.
VAN DYKE, JOHN: *The Opal Sea.*
VERRILL: *The Ocean.*

Sea Stories for Children

(For more complete list, see Bulletin of St. Louis Public Library, "Children's Books about the Sea.")

BALDWIN: *American Book of Golden Deeds.*
—— *Fifty Famous Stories Retold.*
BALDWIN AND LIVENGOOD: *Sailing the Seas.*
BARNES: *Book of Sea Stories.*
DEFOE: *Robinson Crusoe.*
DRYSDALE, W.: *Beach Patrol.*
DUNCAN: *Adventures of Billy Topsail.*
HARDY: *Sea Stories for Wonder Eyes.*
HOPKINS: *Sandman, His Sea Stories.*
—— *Sandman, His Ship Stories.*
INGERSOLL: *Book of the Ocean.*
LANG: *True Story Book.*
MONGIARDINI: *Pinocchio under the Sea.*
RICHARDS: *Captain January.*
St. Nicholas, "Sea Stories Retold."
WRIGHT: *Seaside and Wayside Nature Readers.*
WYSS: *Swiss Family Robinson.*

PART TWO

UNIT STUDIES FOR INTERMEDIATE GRADES AND JUNIOR HIGH SCHOOLS

A FOREWORD TO INTERMEDIATE AND JUNIOR HIGH SCHOOL TEACHERS

In each unit study in Part II (with the exception of those which introduce continent study), there are six divisions of the work which should be clearly understood by the teacher. They are explained as follows:

1. **Finding the starting point.** This is an informal introductory discussion. It is not a place for *instruction*, but it is a period of *exploration*. The teacher wishes to call up the children's present knowledge about the unit which is to be studied. She knows that there are some interests in the daily lives of the children which would lead naturally into the new field, and that it is a great waste in education if these interests are not used. She thinks over the children's experiences (as she knows them) and formulates questions or suggests topics which are to remind the children of whatever they already know about the subject to be studied. If any one of her suggestions fails to bring a response, it is quietly dropped for the time being. If no answering thought is aroused, it is apparent that the children have no knowledge concerning the topic, and it should be reserved for study as new material. The teacher is on the alert to discover a new line of investigation and to follow it with enthusiasm. Seemingly trivial incidents, or items of personal experience, may prove to be just what she needs to arouse individual interests and to obtain a contribution from every member of the class. In this way the teacher finds the starting point. The outline of each unit suggests ways of conducting this exploration.

If the teacher finds that the introductory discussion concerning a unit of study has proved unsatisfactory and that

there is really very little in it upon which to build, she might plan to give a carefully prepared talk of five or ten minutes, stating some of the more striking and significant geographical "controls" of the area, and suggesting some of the human activities which result from them. This will help the children to find their own interest centers.

2. **Reading the map.** In each unit study, a series of map facts is given. Most of these facts *were actually obtained from children* of the grades. They are listed in the study, not as facts to be presented to the children, but as a standard by which the teacher may judge the map-reading ability of her own group.

Map reading is conducted as a laboratory exercise. With books open at the best physical and political maps of the area, the children are asked to say what those maps tell them. They are not questioned as to specific items on the map; that makes the child so conscious of single elements that he cannot get the larger thought which the map has to give him. To read a map well, the child must learn to look beyond the symbols to the thought.

To stimulate map reading, the teacher might say: "The children of the sixth grade in a certain city found twenty good map facts about this unit. Look at your maps and list every map fact concerning the subject that you think will help us in getting a fair and true understanding of the people who live here. After you tell me your facts, I will let you compare your list with the one I have in hand."

In the intermediate grades, many children will see locational facts only. These have their value, but the children should be encouraged to find the map facts that give inferences, or that state comparisons. As a rule, older children will draw inferences sooner and will generalize more freely than the younger pupils. The younger child stresses the personal and the specific. Out of three hundred map facts presented by fifth-grade children, seventy were facts of location, seventy were identifications of surface features, fifty-six were inferences or conjectures, and thirty-two were comparisons.

If children are permitted to read a map freely, and encouraged to state their findings, they will soon pass from statements of obvious locational facts to statements of conclusions derived from groups of facts.

List map facts on the blackboard as they are offered, using the childlike and naïve expressions in which they are given. This translates the map into child language and gives it a real meaning. Explain to the children that these map facts will help us later, when we come to work out problems. Maps will give a wealth of information, if they are used. Read them freely; first, for the general thought; secondly, for specific information.

3. **Discovering interest centers.** An interest center is some definite thing one wishes to know about an area, something about which one has a lively curiosity. It may be a problem, although no single problem can center all the interests of a large area. An interest center originates with the child and is expressed in his own words. After the introductory discussion of a unit, and after the map reading, most children are ready to tell what they would *like to know*, or *to do*, with regard to the study.

Some children are *thing thinkers*, and their interest will naturally turn to specific things — Ford cars, the locks of a canal, etc. Others are *idea thinkers* and are quick to find problems which call for investigation. In each unit study encourage class work and individual work in both types of interest centers.

Many of the interest centers listed in these studies are in the exact words in which children expressed them. Like the map facts, they embody suggestions for various lines of work.

4. **Working out some of the problems.** Some interest centers become true problems which all the members of the class may study profitably. Encourage the class to help you outline the problem. Talk over what facts are needed to help solve the problem. The children should read widely and discuss freely what they find. They will wish to make maps and graphs, and to explain these to the group. Fre-

quent summaries of the different parts of the problem are also needed. These should be required in both the oral and the written form.

5. **Selecting tool facts for drill.** After several interest centers have been dealt with and the class has assimilated much information about the unit, select a few facts which are worth remembering, because they will afford a foundation for thought. Then drill on such facts as one would drill on the words in a spelling lesson.

6. **Planning illustrative activities.** During the course of a study, opportunities for dramatizations, for construction work, for debates, talks, exhibits, etc., will arise. Many suggestions for these activities are offered for each unit. Select those which seem to fit in naturally with your study, introducing them whenever they belong in the work, and as often as occasion may require.

CONTINENT STUDY

UNIT 1. SEEING NORTH AMERICA AS A WHOLE

Time required: 2 to 3 weeks

North America is the home of three great nations. Let us see what advantages it offers to their people.

Location. Does the location of the continent help to tell us why these nations are so great? If North America were where Africa is, would these nations be so great? If the whole continent were about where Greenland is, would these nations have the same opportunity? where Australia is? Why did not South America produce a nation as great as ours? With globe in hand, or with hemisphere maps, describe as well as you can just where North America is; then tell what points of its location are favorable, and what are unfavorable.

Most children readily mention such points as these:

1. North America is all north of the equator.
2. Only its narrowest part lies in the torrid zone.
3. Its widest part is in the temperate zone.
4. It has few near neighbors. In the Eastern Hemisphere there are three continents very close together.
5. Greenland is a close neighbor, but it is so far north that I think it would not be an important neighbor.
6. The West Indies are island neighbors. I wonder if they are good neighbors for a big continent that is largely in the temperate zone.
7. North America goes farther west than South America.

Such simple map reading shows the need for a way of locating continents more definitely. This brings up the question: How can we locate North America more definitely? Explain that the measurement of latitude and longitude is a device to tell where places are on the globe.

1. **Suggested methods.** On a plain slated globe, or on any smooth ball, draw the equator and parallels 10 degrees apart (noting the division of circles into degrees). Name circles for different children. Teach the word *latitude* as meaning distance north or south of the equator. Let each child give the latitude of his parallel. Several children may have the same parallel. Then are they necessarily in the same place? How describe where they are? Draw a north-south line called the *prime meridian;* add other meridians, and teach the word *longitude* as distance east or west of the prime meridian. Drill in telling the longitude of given meridians; then drill in telling the latitude and longitude of points of intersection of parallels and meridians.

From the globe showing the continents, estimate the latitude and longitude (*a*) of North America, (*b*) of the other continents. Note that the parallels are not all the same length on the globe, but that they are shorter toward the poles. Consequently degrees of longitude are not all the same length.

DEGREES OF LONGITUDE

In Latitude	0°	a degree of longitude measures about							70	miles
"	"	30°	"	"	"	"	"	"	60	"
"	"	40°	"	"	"	"	"	"	53	"
"	"	60°	"	"	"	"	"	"	35	"
"	"	80°	"	"	"	"	"	"	12	"

2. *Additional drill questions on the globe.* What is the latitude of the North Pole? the equator? Through what continents does the equator pass? the prime meridian? What is the longitude of a place on the globe opposite the prime meridian? What is the greatest longitude a place can have? the greatest latitude? How many degrees wide is North America at the 40th parallel? Then how many miles wide? Find widths of other continents at given parallels. Point to a place on the globe, latitude 40 degrees north, longitude 90 degrees west, etc. Continue such drills at frequent intervals till the child *thinks* latitude and longitude easily.

References

BRIGHAM AND MCFARLANE: *Essentials of Geography*, First Book, pages 59–60.
CARPENTER: *New Geographical Reader: North America*, pages 13–20.
CHAMBERLAIN: *The Continents and Their People: North America*, Chapter I.
DODGE: *Elementary Geography*, pages 75–78.
FRYE: *New Geography*, pages 73–76.
MCMURRY AND PARKINS: *Elementary Geography*, page 47.
SMITH: *Human Geography*, Book I, pages 26–31.
TARR AND MCMURRY: *Geography*, First Book, pages 101–104.

Outline. It will help us to see the continent of North America as a whole, if we study its form and its coast lines and name its coastal features.

Show form of continent, first, on the globe, then, on the flat map of the textbook. Note parallels and meridians here.

Directions for sketching the map of North America: Place on the board and on paper lines to represent Tropic of Cancer, the Arctic Circle, the meridians of 60 degrees west and 120 degrees west. These lines are to be in proper space relations to the same lines in the map of the geography textbook. With these as guide lines, sketch in an outline of North America.

Outline the continent with chalk on the sand table, and cover evenly with sand. Drill on the names and location of the following projections and indentations:

Projections. Alaska, Bothnia, Labrador, Nova Scotia, Florida, Yucatan, Lower California.

Indentations. Hudson Bay, Baffin Bay, Gulf of St. Lawrence, Delaware Bay, Chesapeake Bay, Gulf of Mexico, Gulf of California, Puget Sound, San Francisco Bay, Bering Sea.

As you model, call attention to the different types of coast lines, such as the rocky, fiorded coast of southern Alaska; the low, shelving, sandy shore of the Carolinas; the steep, wall-like coasts of part of California, etc.

Surface. How do the surface features and their arrangement help to make North America the home of a great nation?

On the level sand map build in and name, with brief description of each, the following physical features: Coast Ranges, Sierra Nevadas, Cascades, Great Valley of California, Sierra Madres, the Great Basin, the Rocky Mountains and plateaus, the Appalachian Mountains, the Great Central Plain, the Black Hills, the Ozarks, the Laurentian Highland, the Arctic plain. Have the children locate all the surface features you have modeled on their sketch maps of the continent. For excellent physical map as a guide for modeling, see Atwood: *New Geography*, page 124; McMurry and Parkins: *Elementary Geography*, page 59; Smith: *Human Geography*, Book I, pages 34, 35.

NOTE. Do not hesitate to try the sand modeling, as it will prove very helpful in continent study. With the maps of the textbooks before them, the children suggest where the various highlands are and the teacher models rapidly with the moist sand. Use bits of cotton to show the snow on the lofty Sierra Nevadas, or to represent the glaciers which come down to the shore in southern Alaska. Describe in definite terms each feature modeled till a given plain or mountain system takes on an individuality of its own. Every teacher of geography should develop her vocabulary for describing physical features. Such phrases as *jagged peaks, wooded slopes, rounded summits, snow-covered peaks* help in the picture-forming process which is needed.

After the continent as a whole is modeled and described, let the children model and describe selected features. Imaginary automobile trips across the continent in various directions will help to give reality to this study.

Drainage. If the sand modeling is fairly accurate, it will be apparent which way water will run on such a surface. Have the pupils infer where there would probably be rivers, then consult maps to see if they are right. Represent on the sand map the following: Great Lakes, Mississippi River, Missouri River, Platte River, Ohio River, Colorado River, Columbia River, St. Lawrence River, Rio Grande, Mackenzie River, Yukon River. (Use common wrapping string, colored with blue chalk, to represent rivers.) Describe rivers as tidal, navigable, deep, shallow, clogged with sand bars, clear, rock-bottomed, muddy, having rapids and falls, delta-building, etc. A river is usually tidal if it empties into a sea or gulf which has a wide entrance to the ocean. Why?

Then is the Mississippi tidal? the St. Lawrence? Would a tidal river be likely to build a large delta?

With narrow strips of colored paper represent the 30th, 40th, 50th, and 60th parallels, and the 75th, 90th, 100th, and 120th meridians on the sand map. Drill in estimating latitude and longitude of all features represented on the map. Then remove strips and practice in judging latitude and longitude without parallels or meridians marked. Verify, by the maps in your textbooks.

References

ALLEN: *Industrial Studies: The United States*, Chapter 3.
—— *Geographical and Industrial Studies: North America*, pages 1–6.
BRIGHAM AND MCFARLANE: *Essentials of Geography*, First Book, pages 70–78.
CARPENTER: *New Geographical Reader: North America*, pages 13–20.
CHAMBERLAIN: *The Continents and Their People: North America*, pages 1–10.
Companion Series: Our Country: East.
—— *Our Country: West.*
FAIRBANKS: *The Western United States.*
FULTZ: *Out-of-Door Studies in Geography.*
FRYE: *New Geography*, pages 74–80.
Journal of Geography, Vol. 21, page 302.
MCMURRY, C. A.: *Larger Types of American Geography*, pages 1–52, 94–134.
MCMURRY AND PARKINS: *Elementary Geography*, pages 55–67.
PRUDDEN: *The Great American Plateau.*
ROCHELEAU: *Geography of Commerce and Industry*, pages 1–10, 33–46.
SMITH: *Human Geography*, Book I, pages 32–41.

Climate. Does the climate help to make North America the home of a great nation?

NOTE. This study should be made very simple and be given without much explanation. It is necessary to teach many facts, but they should be related facts, and should be humanized as much as possible.

1. *Heat and cold.* All places on the earth do not receive the same amount of heat from the sun. Nearer the equator, where the sun is almost overhead at noon, the rays shine more directly; therefore it is warmer there. The Tropic of Cancer is a line on the globe which shows how far north of the equator the sun's rays ever fall vertically. Is

the sun ever directly over our heads in our home state? in Lower California? Which place would you expect to be the warmer?

NOTE. Hold some object, as a pencil, over the Tropic of Cancer, which is marked on the sand map. Call this object the sun. Show how rays from the sun in June will fall vertically upon the Tropic of Cancer, but will be very much more slanting in New York. Then, which place will probably be the warmer? Where, in North America, will the most slanting rays fall? Then, where will we expect the greatest cold? It is much colder in winter than in summer in New York. What must be one reason for this? Hold the pencil south of the tropic, and show how the sun's rays are now more slanting in New York than they were before. We have noticed that winter days are much shorter than summer days. Would this also help to explain why winter is cold? Further explanation of the change of seasons should be left till the seventh grade. (Atwood: *New Geography*, page 270.)

2. *Winds.* Although the sun gives light and heat to the earth, there are many things which affect the *distribution* of this heat. The most important of these is wind.

From about the 30th parallel of the northern hemisphere to the equator, the winds blow steadily from the northeast. They are called *trade winds*. Why? From the 30th parallel, to the north, the winds blow from the west or southwest. These are called *prevailing westerlies*. Why? These westerlies are not so steady as the trades, but change their direction frequently.

On the sketch maps of North America, and on the sand map, locate the 30th parallel; then arrange small paper arrows to show the directions of the trades and the westerlies.

3. *Drill questions.* What is the direction of the prevailing wind in southern Mexico? Lower California? Hudson Bay? around the Great Lakes? The wind at Puget Sound has been blowing over what? Ocean water is cooler than the land in summer, and warmer than the land in winter. Then, in summer, what effect would the wind have on the temperature at Puget Sound? in winter? The side of a highland to which the wind blows first is called the windward side. The other side is the leeward. Which is the windward side of the Sierra Madres? the Cascades? the Appalachians?

Is the Great Basin on the windward or the leeward side of the Sierra Nevadas?

Make an isotherm or temperature map, and draw (in red) the July isotherm of 68 degrees and (in blue) the January isotherm of 32 degrees. (Frye: *New Geography*, page 94.)

4. *Rainfall.* Review unit study on Air and recall the following principles: rising air soon cools; cooling air gives up its load of water; settling air becomes warm; warming air takes up water.

Does the air that blows over Puget Sound carry much water? As it moves eastward, over what mountains does it pass? Then, what change occurs in its temperature? What effect will this have on its load of water? On which side of the mountains would most of this water fall? As the air descends the Cascades, would there be much rain? Why? Would you expect heavy rainfall in the Great Basin? in the Great Valley of California? in the Great Central Plain? Judge, on the map, and on the sand map, where there would be abundant rain; scanty rain. Turn to rainfall map to verify your conclusions. Make rainfall map, using shading or coloring to represent the different amounts. (Brigham and McFarlane: *Essentials of Geography*, First Book, page 76. Atwood: *New Geography*, page 124. McMurry and Parkins: *Elementary Geography*, page 151.) If the high mountains were in the East, instead of the West, what effect would this have on the rainfall? On the whole, what part of North America seems to have the most favorable climate, judging by temperature and rainfall? Is the greatest nation on the continent in that part?

5. *Plant and animal life.* The temperature and the rainfall of a place help to determine the kinds of plants and animals that are found there. Mention a plant that will grow where it is hot and dry; where it is hot and rainy; where it is cold. What does corn need? cotton? wheat? oranges? dates? What conditions of temperature or rainfall are best suited to the seal, ostrich, sheep, camel, etc.? From maps showing surface, temperature, and rainfall, infer the vegetation to be expected in different parts of North

America. Consult vegetation and animal maps to verify your conclusions. (Frye: *New Geography*, pages 79–80.)

Have children contribute pictures of plants and animals. These may be grouped on the sand map in their proper places.

References

Allen: *Industrial Studies: The United States*, Chapter 4.
Brigham and McFarlane: *Essentials of Geography*, First Book, pages 62–66.
Frye: *New Geography*, page 79.
Smith: *Human Geography*, Book I, page 43.
Tarr and McMurry: *Geography*, First Book, page 108.

Political divisions. North America, unlike Europe, has only three great nations. What are some reasons for this difference? Does the arrangement of the surface features help to explain this?

Where, in North America, is our own country? Answer in three ways. How large is it? (Round numbers only.) How far across? How long does it take to cross it by rail? How many people live here?

From these facts, do you infer that the United States is a great nation? Compare it, in area and population, with some of the great nations of Europe.

Discuss Canada and Mexico in the same way.

References

Brigham and McFarlane: *Essentials of Geography*, First Book, pages 71–74.
Frye: *New Geography*, pages 76–78.
McMurry and Parkins: *Elementary Geography*, pages 55–67.
Smith: *Human Geography*, Book I, pages 41–46.

UNIT 2. THE MID-WEST, OR THE CENTRAL PLAINS OF THE UNITED STATES

Time required: 4 to 5 weeks

Finding the starting point. The term *Central Plains* is so indefinite that it must first be made clear before there is any attempt to gather together the threads of knowledge the child already has regarding particular places within the area.

Defining the term.

What is a plain? What does it look like? Is it all entirely flat? What often grows on plains? Why?

What is a central plain? How does it differ from a coastal plain? Where is our central plain? our coastal plain? (See physical map of the United States.)

Do continents other than ours have central plains? (See relief maps.) Is a big plain in the middle of a continent a good thing? If a continent has a lowland in the center and highlands on the edges, it is something like a plate. Some continents are like a plate turned upside down, high in the center and low on the edges. Africa is like that. Is Europe? Is Australia? Is Asia? What is the country of Mexico like?

NOTE. The bounds of our Central Plains. These are very technical, if given accurately. They might be simplified for the children by using state boundaries only. The textbooks use the term *The North Central States*. Note, however, that eastern Ohio and Kentucky and southern Missouri are not real plains, but dissected plateaus.

The three kinds of plains which make up the Central Plains should be described and located as follows:

(*a*) Lake plains. A narrow hem around the Great Lakes formerly covered by lake water. Very flat; rich, fine-grained soils. Easy to cultivate, a good place for railroads, etc. The Red River Valley also belongs to this lake-plain area. In that valley there once was a lake larger than all the Great Lakes. It dried up and left its flat bed for farm land.

(*b*) Prairie plains. Not so flat as lake plains. Soil not usually so fine-grained. This plain can grow corn, small grain, and grass. A prairie does not have great forests growing on it. There are some trees, but they are usually near the streams, unless they have been planted elsewhere by man.

(*c*) High plains. Not enough rain to insure crops.

What people on the plains do for a living. A study of the illustrations in the textbooks will help the child to see that life on the plains is not a one-interest life, but that there are many kinds of work to be done. Divide the class into four groups, each group to select from the textbook and other reference books the pictures belonging to the subject assigned to them. The subjects for these sets of pictures are (*a*) farm scenes, (*b*) mining scenes, (*c*) factory scenes, (*d*) travel scenes (including pictures of canals, roads, boats, etc.). Each group plans for brief talks to show the variety of work found in each set of pictures. A secretary lists the various employments as they are interpreted from the pictures. Other pictures of scenes in the Central Plains may be introduced to show that there are many *kinds* of *places* as well as many *kinds* of *work* here.

Test the children's knowledge of various places in the Mid-West. An informal discussion of the following topics may discover in the child's everyday life some interest which he already has in the Central Plains:

(*a*) Places in the Mid-West where the children have been.

(*b*) Places where friends or relatives live or have visited.

(*c*) Things we have in our homes which were made in the Mid-West (automobiles, furniture, shoes, breakfast foods, aprons, overalls, etc.). Each child must be sure he knows just where each article was made before he suggests it. Then he may step to the wall map and point out the location.

Reading the map. The following are typical map facts which the children may be led to discover for themselves, if they are given a chance to tell what they can find on the map. *Maps required*: physical, political, railroad, population, rainfall, corn, wheat.

1. The Central Plains lie between the Eastern highland and the Rocky Mountains.

2. They do not go so far south as the Gulf of Mexico, because the Ozark Mountains stop them.

3. They have very long rivers, the longest in the United States.

4. The Great Lakes seem to stop the Central Plains from going farther northeast.

5. Almost all the rivers of the Plains flow into the Mississippi, but the Red River of the North goes the other way.

6. There are many more people in the eastern part of the Central Plains than in the western part.

7. The Black Hills make an uneven place on the Plains.

8. The states in the western part of the Plains are larger than those in the eastern part.

9. The Central states make up almost one fourth of the whole United States. I wonder if one fourth of the people of the country live here.

10. I think there would be many railroads in the Central Plains because it would be so easy to build the track on such broad plains.

Choosing some interest centers. An interest center is some definite thing one wishes to know about an area; something about which one has a lively curiosity. It may be a problem, although no single problem can center all the interests of an area so large as this. It originates with the child and is expressed in his own words. It may be a question, a statement of a desire to find out something or to draw a comparison. It says what the child would like to do or to know.

The following are typical of the child's interest centers as he states them himself:

1. I have always wanted to go to Chicago to see what it is like.

2. Henry Ford lives in Detroit. I should like to know about his big factories there.

3. In North Dakota, they use big gang plows drawn by

tractors to get the ground ready for the wheat. I should like to know more about that.

4. The International Harvester Company is in Chicago. They sell farm implements all over the world. I should like to study about that.

5. The big stockyards in Kansas City are an interesting place.

6. I should like to find out more about sugar-beet growing.

7. A trip on the Great Lakes would be a splendid way to spend a vacation. I should like to plan such a trip.

8. I have always wanted to know how the locks in a big canal are worked. The Soo Canal would be an interesting study.

9. I should like to spend a summer on a big cattle ranch.

10. Why are there so many big creameries and dairies in the Central Plains?

11. I want to find out more about how corn is raised.

12. If the Central Plains raise wheat and corn and sugar beets and potatoes and meat, it looks as if this region must raise most of the really important food we have on our tables. Does it raise more than other sections of the country? How much of the food supply of the whole country does it furnish?

13. Why are there so many things manufactured in the Central Plains?

14. Why are there so many big cities around the Great Lakes?

15. Why is there so much more rain in the eastern part of the Central Plains than in the western part?

16. I should like to find out about the great power dam at Keokuk.

Gathering data and grouping results around selected interest centers. Two interest centers which seem to be adapted to children of these grades, and which call for an investigation of the more essential characteristics of the Central Plains, are:

1. How do the Central Plains help to feed the whole country?

2. Why are so many automobiles made in the Central Plains?

These have therefore been chosen for outlining in this study. The teacher should feel entirely free to use any other interest centers which appeal more to her children. One or two problems of this kind, however, should be worked out by the entire class in committee of the whole. The other interest centers may then be assigned to smaller groups or to individuals.

How do the Central Plains help to feed the whole country?

1. What food do the Central Plains furnish? (Wheat, corn, sugar beets, potatoes, meat, fruit.) From maps, locate the parts of the Central Plains where each is raised in abundance.

2. Some figure facts will help us to understand just how much food is produced here as compared with the rest of the country. These facts are from Dryer: *Elementary Economic Geography*, page 397.

PRODUCTS OF CENTRAL PLAINS

Corn	71%	of total production of the United States
Wheat	70%	" " " " " " "
Oats	80%	" " " " " " "
Barley	67%	" " " " " " "
Rye	65%	" " " " " " "
Potatoes	50%	" " " " " " "
Apples	28%	" " " " " " "
Sheep	29%	" " " " " " "
Hogs	63%	" " " " " " "
Fowls and Eggs	53%	" " " " " " "
Dairy products	46%	" " " " " " "
Meat-packing products	70%	" " " " " " "
Flour	59%	" " " " " " "
Beet sugar [1]	31%	" " " " " " "

[1] Statistical Abstract of United States Census, 1919.

Make a simple graph, showing how much of these fundamental foods comes from the Central Plains. A series of lines arranged on a flagstaff, the different lengths represent-

ing the different per cents, make an easy form for graphing. If the proportions are quite exact, this becomes an excellent problem in arithmetic.

There is an interesting table of statistics on page 260 in the first book of the Brigham and McFarlane geographies. From this, pick out the states of the Central Plains which lead in the crops listed.

3. Make maps showing the wheat, corn, live stock, and sugar areas of the United States. An excellent series of outline maps, containing full directions for children's work, is published by the Dobson Evans Company, Columbus, Ohio.

4. The corn belt. Why do the Central Plains raise nearly three fourths of all the corn of the United States? (Smith: *Human Geography*, Book I, pages 52–59. Allen: *Industrial Studies: The United States*, Chapter 10.) What is corn used for? Why does it pay the farmer to raise it? What kind of soil is good for corn growing?

What weather is best suited to corn? See isotherm map to locate the July temperature belt of 70 to 80 degrees. What summer temperature is best for corn? (See rainfall map.) What rainfall is best suited to corn? Should the heaviest rains come in the early summer or the late summer? How long should the growing season be? Does frost, late in the fall, injure corn? Are cool summer nights favorable to corn? (Recall that corn is really a tropical plant and needs plenty of heat to make it grow well.) Does the corn stalk show by its structure that it needs plenty of moisture to make it grow? (Recall the desert plants, with their small leaves and their woody stalks.) The corn plant seems to be made so that it requires much water. Note the line of 20-inch rainfall. Then turn to the map of corn. Does the area of heaviest corn production extend much beyond that line?

Find reasons why the eastern end of the Central Plains has heavier rain than the western. What rainfall has Omaha? (Discuss the south and southeast winds which bring rains from the Gulf of Mexico.)

What kind of surface should the land have to be favorable for corn growing?

(*a*) Corn requires much room. It must be cultivated often to keep down the weeds. There is need for wide areas of level land in order to use modern machinery.

(*b*) Steep slopes wash badly, and the soil becomes too thin. High altitudes are too cold at night for corn.

(*c*) Although corn is grown almost everywhere in the cotton belt, and is often found in the Appalachian and Ozark areas, it does not produce the big ears that are found in the corn belt.

(*d*) How does the farmer dispose of his corn? (Stored in corncribs or silos; fed to hogs, cattle.) Why does not the farmer ship out his corn, as he does his wheat? Is corn easily stored? How long can the farmer keep corn safely? Why do the more prosperous farmers in the corn belt feed most of their corn to stock?

5. The wheat belt. Why do the Central Plains raise nearly three fourths of the wheat of the United States? (Smith: *Human Geography*, Book I, pages 59–65. Frye: *New Geography*, pages 100–101. Allen: *Industrial Studies: The United States*, Chapter 9.) What are the uses of wheat? Why does it pay a farmer to raise wheat? Tell what wheat fields are like as to size, surface, nature of soils, etc. What weather is best suited to wheat growing? Turn to wheat map, then to the temperature map, and discover what July temperatures are found in the wheat area of the Central Plains. In the same way, study the rainfall maps with reference to the wheat areas. Locate the Red River Valley and find its rainfall.

Should the rains be abundant during the early growing period of the wheat or during the ripening period? What is true of winter wheat? Which ripens earlier, wheat planted in the fall or in the spring? The wheat that ripens earlier may escape some dangers, such as insects and disease. What kind of wheat is grown in the Red River Valley?

Is more spring wheat than winter wheat grown in Kansas?

Turn to the population map to see the density of population in the wheat areas. What is it in the Red River Valley? Then would there be any difficulty about getting labor for the big wheat ranches? How much hand labor is required for wheat? What machinery is used? Is the same amount of labor required during the entire season? Are extra laborers at hand when their work is needed? Does wheat require as many laborers as corn? as cotton? as sugar beets?

Find out how the wheat farmer disposes of his wheat after it is threshed. To whom does he sell it? Where is it shipped? What wheat areas could ship wheat by water? Trace the railroad lines over which much wheat is shipped from Kansas or North Dakota.

Make a list of cities and towns that have flour mills. Locate on the wheat map the principal milling centers. Find three reasons why it pays to make flour at these places. Write a few paragraphs telling why the Central Plains produce so much corn and wheat.

6. Meat. Our graph shows that nearly three fourths of all the meat produced in the United States comes from the Central Plains. What are some reasons for this? Are more hogs raised in the corn belt than in the wheat belt? Where does the corn-belt farmer get his feeder cattle? Why does it pay better to ship feeder cattle into the corn belt than to ship corn for feed to the Western cattle? What other feed besides corn is used for fattening stock?

Where are the big packing houses? Find some reasons why Chicago has the largest packing plant in the United States. Why is Omaha a good place for stockyards? Kansas City?

Why are so many automobiles made in the Central Plains? (Frye: *New Geography*, pages 137–141. Smith: *Human Geography*, Book I, pages 71–81. McMurry and Parkins, *Elementary Geography*, pages 84–90. *Journal of Geography*, April, 1923. *Scientific American*, 1919, Vol. 121, page 511.)

1. Three out of every four farmers in Nebraska own automobiles. Many have trucks and tractors. In Iowa, too, the number of automobiles is very large. Why do farming people buy so many automobiles? Do they buy more cars than workers in factories or in big stores? Why would Iowans buy more automobiles than the people of Colorado, for instance?

2. Compile a list of all the makes of cars you know, and after each place the name of the city where it is manufactured. You can get this information from advertisements, from garage men, and from car owners.

3. Trace a map showing the state boundaries of the Central Plains, and locate with a cross the places on your list. What two places lead in number of automobiles manufactured?

4. What raw materials are needed to make automobiles?

(*a*) *Iron.* Where are the iron-ore fields? How is the ore mined? How is it loaded and carried to the Lake Superior ports? How is it loaded on the boats? What kind of boats carry the ore to the iron manufacturing cities? Trace the route from Duluth to Detroit; to Gary; to Cleveland. (McMurry and Parkins: *Elementary Geography*, pages 85–90.)

(*b*) *Wood.* (Frye: *New Geography*, pages 102–103. Smith: *Human Geography*, Book I, pages 71–75. McMurry and Parkins: *Elementary Geography*, pages 86, 115–116.) What parts of an automobile are made of wood? What kind of wood is used? Where did it grow?

(*c*) *Copper.* For what used? Where obtained?

(*d*) *Rubber.* The city of Akron, Ohio, makes more tires than any other city in the world. Where does the raw rubber come from? Why does it pay to ship it from southeastern Asia to the interior of the United States to be manufactured?

5. What power is used to run the machinery in a big automobile factory? (See coal map.) How far are Detroit

and Cleveland from coal? Would coal cost as much in Detroit as it does in Des Moines? Coal is needed to smelt the iron ore in the great blast furnaces. It is usually made into coke before it is put into the furnace with the ore. Why? What is the iron called when it comes out of the furnace? Why does not Fargo, North Dakota, have great blast furnaces and automobile factories?

6. How are automobiles shipped out to the dealers in the different parts of the country? Do some go by water? What railroad lines bring cars to your home town? Are there many railroads in the part of the Central Plains where most of the automobiles are made? Are any of these automobiles shipped to foreign countries? In what section of the United States is there the greatest demand? Why?

7. List all the reasons you can find why so many automobiles are made in or near Detroit.

Some significant facts for drill.

1. Name and location of all the states in the Mid-West.
2. Area of the Mid-West. (About one fourth of the United States.)
3. Population of the Mid-West. (About one third of the United States.)
4. Approximate per cent of total production of the United States, in Central Plains, of corn, wheat, meat, potatoes.
5. Exact location of ten or twelve cities, the list to be made by the class.
6. Names of the Great Lakes and their connecting links.
7. Location of (*a*) Lake Superior iron-ore field; (*b*) three large coal fields in or near the Central Plains.
8. Location of two forest areas in or near the Mid-West.
9. Name and be able to trace two or three important railroad lines in the Mid-West.
10. Trace the line of 20-inch rainfall.
11. Trace the outline of the corn belt.
12. Trace the outlines of two important wheat areas in the Central Plains.

Some suggestions for children's activities.

1. Model the Central Plains in sand. Locate the Great Lakes, the Ozark Mountains, the Black Hills, the Mississippi, Missouri, Ohio, and Red rivers. Use some symbol to locate the coal fields and the Lake Superior iron-ore fields.

2. Have groups of children dramatize selected events in the life of the Central Plains. The children should choose the event they wish to present and plan the simple costumes and action needed. The following is a list which may be helpful:

(*a*) A scene in a Minneapolis flour mill.
(*b*) A scene in a Minnesota iron-ore district.
(*c*) Buying feeder cattle at the stockyards for a farmer in the corn belt.
(*d*) Scene at a large elevator in the wheat belt.
(*e*) An International Harvester dealer tries to sell farm implements: (*a*) to a sugar-beet farmer near Scottsbluffs, Nebraska; (*b*) to a corn-belt farmer near Springfield, Illinois; (*c*) to a wheat farmer in the Red River Valley.
(*f*) A group of capitalists discuss Topeka as a place to set up an automobile factory.

3. Write to the International Harvester Company, of Chicago, telling them who you are, where you live, what you are studying in school, and ask for all the free advertising material they can send you.

4. Write to the Moline Plow Company, of Moline, Illinois, asking for free advertising material from their great plant.

5. Write to some automobile manufacturer, asking for information as to where he gets the coal, or the iron, or the wood for his factory.

6. Children give talks on selected subjects, such as (*a*) my visit to Chicago, (*b*) a visit to the stockyards, (*c*) how sugar beets are raised, (*d*) a trip on the Great Lakes, (*e*) how a lock canal works, (*f*) an automobile trip over the Central Plains.

7. An exhibit of manufactures of the Central Plains.

A committee collects articles, pictures, advertisements, etc., and arranges them for display, each exhibitor being responsible for some explanation of the article he furnishes.

8. Trace one or two of the automobile highways that cross the Central Plains, and discuss the scenes along the route.

References

ALLEN: *Industrial Studies: The United States*, pages 107–115, 125–137, 165–175, 252–264.
ATWOOD: *New Geography*, pages 39–52.
BENGTSON AND GRIFFITH: *The Wheat Industry*.
BRIGHAM AND MCFARLANE: *Essentials of Geography*, First Book, pages 123–133.
CARPENTER: *How the World Is Fed*.
—— *New Geographical Reader: North America*, pages 224-258.
CHAMBERLAIN, J. F.: *How We Are Fed*.
CHAMBERLAIN, J. F. AND A. H.: *The Continents and Their People: North America*, pages 80–122.
DRYER: *Elementary Economic Geography*, pages 106–181.
FISHER: *Resources and Industries of the United States*.
FRYE: *New Geography*, pages 96–106, 133–142.
GOODE: *School Atlas*, pages 16–19, 32–45.
HOTCHKISS: *Representative Cities of the United States*.
JOHNSON, C.: *Highways and Byways of the Mississippi Valley*.
MCMURRY AND PARKINS: *Elementary Geography*, pages 84–101.
—— *Advanced Geography*, pages 62–94.
NIVERS: *Advanced Geography*, pages 26–52.
ROCHELEAU: *Geography of Commerce and Industry*.
SANFORD: *The Story of Agriculture in the United States*.
SMITH: *Human Geography*, Book I, pages 52–81.
—— *Commerce and Industry*. See Index.
—— *The World's Food Resources*.
SOUTHWORTH AND KRAMER: *Great Cities of the United States*.
TARR AND MCMURRY: *World Geography*, pages 174–202.

UNIT 3. THE WESTERN STATES

Time required: 4 to 5 weeks

Finding the starting point. The following topics may serve to introduce the study and enable the teacher to discover, in the child's everyday experiences, some interests which could be used as a starting point:

1. Places in the Western states where the children have been.
2. Places where their friends or relatives live.
3. Interesting places the children would like to see, and why.
4. Things we have in our homes which came from the Western states: oranges, lemons, raisins, prunes, other dried or canned fruits, olives, Navajo Indian blankets, Mexican and Indian pottery, cedar shingles on our houses, other kinds of wood, canned salmon, articles made of silver or copper, borax, wool, the mercury in our thermometers, etc.
5. Interesting Western people: Buffalo Bill, Roosevelt as a cowboy, Luther Burbank, John Muir.
6. The making of moving pictures in California.
7. Stories of the gold seekers of '49.

A relative importance test. Aim: To aid the teacher in discovering the child's judgment of values, before the study of the area is made; at the close of the study, she will then be able to tell how far his opinions have been modified.

All of the following statements are true, but some are more important than others. Divide them in two groups according to their importance. Number the statements in each group in order of their worth.

1. Charlie Chaplin lives in California.
2. The Sierra Nevadas are the highest mountains in the United States.
3. More than half of the copper of the United States comes from the Western states.
4. Many Japanese wish to come to the Pacific states to make homes for themselves.

5. The sheep herder in Wyoming has a lonely life.

6. Colorado and California produce most of the gold in our country.

7. The Grand Canyon of Arizona has rock layers of many colors.

8. Seattle and Portland furnish much lumber to the dealers of the United States.

9. Pike's Peak always has snow on its summit.

10. All the boundary lines of Colorado are straight lines.

11. Some of the bears in Yellowstone Park are so tame that they come up to the hotels and camping places and take meat out of the garbage cans.

Reading the map. The following are typical of the map facts which children may be led to discover for themselves. *Maps required:* physical, political, population, forest, coal, railroad.

1. This section of states is more than one third of the whole country. I wonder if it has one third of the population.

2. The states in the group are all large. There is not a state east of the Mississippi River so large as any one of these.

3. Many of the state boundaries are straight lines.

4. Many rivers start in Colorado and Wyoming, flowing in different directions from that center.

5. Six of the states of this group touch foreign countries.

6. The Rocky Mountains bulge the farthest eastward in Colorado. They are the highest there, too.

7. There is a chain of valleys along the Pacific slope. The largest is the Great Valley of California. I should expect these valleys to be good farming land.

8. The Columbia River cuts right through the Cascades.

9. I should not expect many of the rivers in this section to be navigable, because they nearly all seem to cut through the mountains. They will probably be good for water power.

10. The Coast Ranges break down in one place, so making the Golden Gate and San Francisco Bay.

11. Puget Sound is like a great bite out of the coast of

Washington. It has long, narrow, irregular bays extending into the land. I should think there would be many good harbors here.

12. The land is much more level back of the Cascades (east) than it is back of the Sierra Nevadas.

13. The state of Nevada has very few rivers. Those that are there seem to start, then disappear. They do not get out to the sea.

14. I do not believe there would be much farming land in some of these states.

15. The mountains here are much wider and higher than those of the Eastern highland.

Choosing some interest centers. An interest center is some definite thing one wishes to know about an area, something about which one has a lively curiosity. It may be a problem, although no single problem can center all the interests of an area so complex as this. It originates with the child and is expressed in his own words. It may be a question or a statement of a desire to find out something or to draw a comparison. It says what the child would like to do or to know.

The following are typical of the child's interest centers as he states them himself:

1. I should like to go to Hollywood to see how moving pictures are made.

2. I should like to find out about the big sheep ranches in Wyoming.

3. I want to visit Yellowstone Park sometime.

4. Why do we get so much of our fruit from California?

5. What are the Big Trees of California really like?

6. I should like to find out how the railroad trains cross these high mountains.

7. Why is so much of this area almost a desert?

8. How do people make a living in these rough lands?

9. Is there much manufacturing done here?

10. The map shows that there are great forest areas in the mountains and along the Pacific slope. I should like

to know just what those forests are like. Do foresters take care of them? What is their work?

11. What is a copper mine like?

12. How does an irrigation system work? Why don't they irrigate all the dry land in this section?

13. Are the cities on the Pacific coast as busy with boats and railroad trains as those on the Atlantic coast?

14. Why are there so many National Parks in this area?

15. I should like to find out about the salmon-canning factories.

Gathering data and grouping results around some interest centers. Two interest centers which seem to be adapted to children of this grade, and which call for an investigation of the more essential characteristics of the Western states, are:

1. How do people make a living in these rough mountain lands?

2. Is the Pacific coast as busy a place as the Atlantic, with many great steamships coming and going, with many trains loaded with freight and passengers, with great factories and warehouses, and with a dense population?

These have, therefore, been chosen for outlining in this study. The teacher should feel entirely free to use any other problems which appeal more to the children. One or two problems of this kind, however, should be worked out by the entire class in committee of the whole. The other problems may then be assigned to smaller groups.

How do people make a living in these rough mountain lands?

1. *Some farming land.* Not all the area is rough. There is a wide stretch of land to the east of the Rockies which is called the *Great Plains*. This is found in eastern Colorado, Wyoming, Montana, and New Mexico, and is generally level enough for farming. In the very heart of the Rockies, too, there are many valleys, some of them fifty miles long and nearly as wide, which make good farm lands. The great valleys just east of the Coast Ranges also have hundreds of square miles of flat or gently sloping areas which are

easily cultivated. On the relief map trace with your finger the eastern bounds of this section of states. Then notice the Great Plains, the valleys within the Rockies, and the great valleys of the Pacific slope. Try to think of all these as possible farming lands. Are there more uplands than lowlands in the Western states? What kind of soils do you expect to find in the valleys? Read something about the lava soils in the plateau east of the Cascades.

2. *The serious hindrance to Western farmers.* Examine the rainfall maps and find out the amount of rainfall (*a*) on the Great Plains, (*b*) in the Rocky Mountain and plateau areas, (*c*) in the valleys of the Pacific slope. Where is the heaviest rain in this section? the least rain? What fraction of the area has less than ten inches of rain? What states are included in this group? About what fraction of this whole area has rain enough for crops? How much rain is *enough?* What is the annual rainfall at your home? See textbooks for reasons why this area is so dry. Imagine your hand is the west wind, and let it move slowly over the relief map. Wherever the air climbs a highland, there will be a chance for rain. Where it descends, that area will probably be very dry. Think of the different places, and infer what their chances for rainfall will be. Then turn to the rainfall map to see if you are right.

Now turn to the July temperature map. Notice how even the temperatures are on the Pacific coast. Why? What is the lowest July temperature found in the whole section? Where? Why there? What temperature is best for corn? What crops could grow in places with a July temperature of only 50 to 60 degrees? Would the water that falls as rain evaporate rapidly in those places? Why? Then, could they farm with less rainfall than in the places having a July temperature of 80 degrees or above?

3. *Irrigation and dry farming.*

References

ATWOOD: *New Geography*, pages 68–69.
BRIGHAM AND MCFARLANE: *Essentials of Geography*, First Book, page 137.

DRYER: *Elementary Economic Geography*, pages 318–325.
GOODE: *School Atlas*, pages 33–37.
MCMURRY AND PARKINS: *Elementary Geography*, pages 125–132.
—— *Advanced Geography*, pages 135–142.
SMITH: *Human Geography*, Book I, pages 93–95.

If some of the surface and soil of the Western states is favorable for farming, and if the summer temperature is suitable for certain crops, what is the one thing needed? Where can the water be obtained? Describe an irrigation system, showing how the water is stored for future uses, how it is brought to the farms, etc. Model in sand an irrigation system; in one place, show some land higher than the river from which the water for irrigation is taken, and study out a way to irrigate this land from the river.

Make a list of crops which can be grown on irrigated land; recalling the high temperatures of Arizona and New Mexico, list some of the tree crops of warm lands, as well as the field crops.

On a simple sketch map of the Western states, locate, by shading, seven or eight irrigation projects. Is there water enough available in the West to reclaim all the dry farm lands?

What is dry farming, and where is it practiced? What crops may be grown by this method?

4. *Grazing.* Is there rainfall enough on some of the rough lands to grow grass? How does this grass differ from the blue grass on our lawns? Describe a sheep ranch in Wyoming. Tell about the herder and his outfit; the sheep dog; the care of the sheep; the size of the herd; sheepshearing. Why are sheep adapted to the scanty pastures of rough lands?

5. *Fruit growing.* What fruits come to us from California? Does the orange require the same conditions as the apple in order to grow well? Examine an orange to see if you can tell something of the climate it requires. Notice the tough skin, with oily, bitter rind; the great amount of water in the fruit; the tough, varnished leaf; the hard wood of the stem. These indicate that the plant grows where it is dry. Unlike corn, it has many devices to save

water. The fruit is so watery that we might infer it cannot stand frost. Locate Riverside, San Bernardino, and Redlands on the map of California. These are centers of orange production. What is the rainfall in these places? What is the July temperature? Describe an orange grove. What care do the trees need? How is the fruit picked and shipped?

From the names on cartons containing raisins, find where the raisin grapes are grown. Write to the Chamber of Commerce at Fresno, California, for free material on raisin grapes. What is the rainfall at Fresno? Is it heaviest in summer or winter? Tell how the grapes are dried and packed for shipment.

6. *Mining.* Find out what kinds of mines are found in this section. Which is more important, a copper mine or a gold mine? Why? What uses of copper can you name? Make a list of the states which produce copper. Describe a copper mine: the shaft, the tunnels, the ventilators, the chambers where the miners work, etc. What is the smelter? List the states of this section which have coal. Do you infer that there are many railroads in the mountain lands? Then will all the available coal beds be mined? The Pacific states produce about 8 million tons of coal a year; the total output for the United States is usually about 500 million tons. Do these states furnish their share? Describe two ways of mining for gold. What states lead in gold output? About four fifths of all the gold, silver, and copper produced in the United States comes from the Western states.

Oil wells are found in California near Los Angeles, and also in Bakersfield, in the Great Valley of California. Out of the more than 300 million barrels of petroleum which the United States produces in a year, California furnishes about one fourth. Does this oil help to make up for the coal shortage? Infer several conditions which may be expected here because of the supply of oil: oil-burning engines on railroads; pipe lines; oil-burning boats on the sea; oiled roads; great lines of oil-tank freight cars; enormous tanker boats, etc. Where are the other oil wells of the Western states? Los Angeles is the largest city in this whole

section. What other reasons, besides that of having oil wells in its vicinity, can you find to account for this?

7. *Lumbering.* See forest map. Make a list of the states in this section which have extensive forest areas. Why are great forests found on the west side of the Coast Ranges, the Cascades, and the Sierra Nevadas? See rainfall map. Why in the Rocky Mountains? What kinds of trees grow in these forests? What is meant by National Forests? (Carpenter: *How the World Is Housed*, pages 73–90. Allen: *Industrial Studies: The United States*, pages 253–286.) What special use is made of each kind of tree? (Cedar for shingles, spruce for paper, etc.) Describe the Douglas fir. Write a list of five ways in which forests may be conserved. The children should be encouraged to tell from their own observation some instances of conservation. Describe the work of a forester. Describe a lumber camp. Tell how the trees are felled and trimmed, how the logs are taken to the mill. Nearly one third of the lumber of the United States comes from the Western states.

With so many great forests along the Pacific slope, we know there will be many lumber mills there. Locate the great lumber markets. Ask the local dealer to tell you from what Western markets he buys his lumber, and how it is shipped to him.

8. *Fishing.* From the labels on salmon cans, find out where some of the canneries are located. Read of the life history of the salmon. How are salmon caught? How is the fish canned? What are some of the by-products of the canneries? What people usually work in the canneries?

9. *Manufacturing.* What raw materials found in this section could be used for manufactures? What materials for manufacturing could be imported from Asia? Is there coal enough for extensive manufactures? What about water power? What manufacturing is now being carried on?

Make a list of all the occupations you have found for people in the Western states. Decide whether these industries would require many or few laborers. Write a paragraph about the possible density of population in these

states as compared with that of the Central Plains. Find reasons for the rapid development of the Western states.

Is the Pacific coast as busy a place as the Atlantic coast?

1. Turn to a population or city map. Write a very careful statement about the number of cities on each coast. Describe the two shore lines. Then examine the coal map, and write your conclusions about coal for the two coasts. Next find the Western section of the United States on the largest globe you have. With a string, using the scale of miles, find out about how far it is from San Francisco to Hongkong, or from Seattle to Nagasaki. Then measure with your string the distance from New York to Liverpool. What do you conclude about distances from other countries and continents? Will this affect the amount of trade on the Pacific coast? New York City has almost as much foreign trade as all the rest of the ports of our country added together. What are some reasons for this?

2. Now look at a product map of the United States. See if you can decide which coast has the best (most productive) land back of it. Seaports cannot be busy unless the lands back of them (their *hinterlands*) have many products which they are constantly sending to the ports for shipment elsewhere. Notice how large the hinterland of New York is, because the Eastern mountains are not so high or so wall-like as those of the West. This hinterland extends almost to the Rocky Mountains. Your state belongs to which hinterland, that of the Atlantic or that of the Pacific? Does grain and live stock from the Central Plains go east or west in shipment? Judging by the surface and the rainfall of the Western hinterland, is it as productive as the Eastern?

3. We have judged from the map that the Pacific coast cannot be so busy a place as the Atlantic coast. Now let us think what the boats of the Pacific would probably carry. What products of this coast are shipped to foreign countries? What do foreign countries send in return? What products are shipped eastward to other parts of our own country? What Eastern wares are shipped to the West?

Trace three main lines of railroads through the Western section.

NOTE. There are so many possible lines of study in this complex area that a short outline cannot cover them. The teacher will judge by the natural interests of her class, and select further interest centers for group work.

Suggestions for children's activities.

1. Model the Western states in sand, locating the most important mountain ranges, the Great Valley of California, the Willamette Valley, Puget Sound, the Columbia, Colorado, Rio Grande, and Missouri rivers, and eight or ten cities.

2. Some letters to write:

(*a*) To the Bureau of Forestry, Washington, D. C., asking for maps and booklets.

(*b*) To the Bureau of Mines, Washington, D. C., for material on mines and mining.

(*c*) To the Secretary of the Los Angeles Chamber of Commerce, asking for free advertising material.

(*d*) To some of the children of the fifth grade in the schools of Portland and Seattle, asking for information about salmon and lumber.

3. Have different groups of children dramatize selected events in the life of the Western states. The children should choose the event they wish to present and plan the simple costumes and action needed. The following list may be helpful:

(*a*) A scene in an Oregon lumber camp.

(*b*) A scene in an orange grove.

(*c*) A scene on a ranch in the irrigated area of Utah.

(*d*) A buyer from the Western Electric Company interviews the copper dealers at Butte, Montana, regarding an extensive sale of copper.

(*e*) A scene on a sheep ranch in Wyoming.

(*f*) A talk with a raisin-grape grower of Fresno, California.

(*g*) Your lumber dealer pays a visit to the great lumber market at Portland and leaves an order for lumber.

(*h*) A guide takes a party through Yosemite Park.

(*i*) A talk with a group of salmon fishers on the Columbia.

(*j*) Frontier Week at Cheyenne.

4. Plan an automobile trip from your home to some point on the Pacific coast. Secure maps showing the main automobile highways; then make out a schedule of dates and places, and note interesting scenes on the route.

5. An exhibit of articles from the Western states. A committee collects these, and arranges them for display; each exhibitor is required to give an explanation of the article he furnishes.

6. Make graphs showing the per cent of the total for the United States produced by this section.

PRODUCTS OF THE WESTERN STATES

Wheat	16%	of total production of the United States
Barley	30%	" " " " " " "
Hay	21%	" " " " " " "
Apples	10%	" " " " " " "
Grapes	51%	" " " " " " "
Oranges	74%	" " " " " " "
Sheep	55%	" " " " " " "
Wool	58%	" " " " " " "
Coal	5%	" " " " " " "
Petroleum	35%	" " " " " " "
Copper	87%	" " " " " " "
Gold	98%	" " " " " " "
Silver	95%	" " " " " " "
Timber and Lumber	24%	" " " " " " "

From Dryer: "Elementary Economic Geography," Statistical Appendix.

Some significant facts for drill.

1. Name and location of all the states in the section.

2. Exact location of ten or twelve cities selected by the class.

3. Trace three important railway lines in the Western states.

4. Location of centers for each of the following: oil, raisins, oranges, apples, forests, salmon, wheat, copper, sheep.

5. A figure fact as to the output of (*a*) copper, (*b*) coal,

(*c*) citrus fruits, (*d*) lumber, (*e*) wheat. (See Dryer: *Elementary Economic Geography*, Statistical Appendix.)

6. Name and location of eight or ten of the most important physical features.

7. Name and location of four or five National Parks in this section.

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CARPENTER: *How the World Is Housed*, pages 73–90.

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ROCHELEAU: *Geography of Commerce and Industry*, pages 113–117.

SMITH: *Human Geography*, Book I, pages 81–108.

UNIT 4. THE SOUTH

Time required: 4 weeks

Finding the starting point.

1. Things we know the South furnishes us: cotton and cotton goods, rice, cane sugar, tobacco, peanuts, fruits and vegetables, oysters, beef cattle from Texas, gasoline from oil fields of Texas and Oklahoma, lumber for houses, etc.
2. Our interest in the black race.
3. Persons we know who live in the South.
4. Experiences at Southern winter resorts.
5. Places we have visited in the South.
6. Advertisements about the South which we have seen in newspapers and magazines.
7. History stories of Ponce de Leon, De Soto, Captain John Smith, Pocahontas, etc.
8. Southern heroes we have read about: Washington, Jefferson, Patrick Henry, Robert E. Lee, etc.
9. Southern songs we like: "Dixie"; "Old Folks at Home"; "Old Kentucky Home"; "Maryland, My Maryland"; etc.
10. Southern stories and poems we have read: Stories by Joel Chandler Harris, Ruth McEnery Stewart, Molly Sewell, Charles Egbert Craddock, and J. T. Trowbridge. Poems by Sidney Lanier, Paul Laurence Dunbar, and others.

Reading the map. *Maps used:* physical, political, railroad, population, rainfall, temperature, coal, cotton, corn.

1. When I look at a map of the United States, I can see that the South is about one fourth of the whole country. I wonder if it has one fourth of the population.
2. Most of the area is a plain, except for the Appalachians, part of the Ozark Plateau, and the High Plains in Texas.
3. This section has more coast line than any other group of states. The coast line is uneven in many places. I wonder if there are many good harbors. Are Southern people great seamen?

4. Chesapeake Bay is long, and its shore line is much broken.

5. There are many swamps along the coast. This is very different from the Pacific coast.

6. Louisiana and Florida have no highland at all. Mississippi has very little.

7. There are many rivers in the South. Those in the eastern part are not so long as those in the western part. So many rivers come from the mountains that I think there must be much water power here.

8. I see many lakes in Florida. Are they glacial lakes, like those in Minnesota?

9. I think railroading would be very easy over much of the South because it is a plain; the railroad map of the United States shows that the South does not have so many railroads as some other parts of the country.

10. The population map does not show any areas of very dense population. The areas of least population are in Florida and western Texas. I wonder why.

11. The temperature map interests me. I find that most of the plains areas of the South have a July temperature above 80 degrees.

12. The rainfall map shows me that the South has plenty of rain everywhere, except in western Texas and Oklahoma (west of the 20-inch rainfall line).

13. On the map which shows where cotton is grown, I find the areas of heavy production are not along the coast, but are farther inland. Texas has the largest area. There is a big cotton district along the Mississippi. Another is on the upper coastal plains of South Carolina, Georgia, and Alabama. They do not grow much cotton in the Appalachians.

14. The corn map shows that they grow corn almost everywhere through the South. I suppose many of the people live on farms here.

15. The coal map shows that most of the coal of this area is in the Appalachians.

16. There are not so many cities in the South as in the North.

Finding some interest centers.

1. I should like to know more about boats on the Mississippi River.
2. Is the South, like the Central Plains, a great food-producing region?
3. The advertisements about cypress wood interest me.
4. What is the tobacco plant like, and how is it raised?
5. I should like to know about alligators and other interesting animals in Florida.
6. I want to know more about how they raise cotton.
7. I will see what I can find out about peanuts.
8. I will find out all I can about making cane sugar; it would be interesting to compare sugar cane and sugar beets.
9. Are there many great factories in the South?
10. What do the black people of the South do for a living? How is the South helping the negro?
11. I should like to find out about Birmingham, because I have heard it is the Pittsburgh of the South.
12. I should like to trace the main railroad lines of the South and tell about some of the big cities along them.
13. New Orleans would be an interesting place to visit.
14. I should like to know more about life in the mountains of Kentucky and Tennessee.
15. I should like to make a comparison between the Central Plains and the Coastal Plains as a place for a home.
16. I should like to go to Oklahoma to see the Indians there.

Working out some of the problems. *How does the South help to provide food and clothing for the whole country?*

1. *Farming in the South.* Recall the map facts you found. What part of the South is a plain, and so has a surface suited to farming? There are also many fertile valleys in the mountains, with fine farm land. Where is the Piedmont Region, and why is it good farming land? Is the area along the coast favorable? What are its disadvantages? What other areas are too swamp-like for ordinary farming? (Find

descriptions of surface of the country in your books.) Look for statements about the soils of the South. Locate the *Black Belt;* the belt of sandy soils. Where would you find rich river soils? Has the South much glacial soil? What fertilizers are needed? Can the South furnish these?

Do forests cover much of the area? Locate the larger forest areas on the map. A little less than one third of the land in the South is improved. What reasons can you find for this?

Judging by the rainfall map, is rain sufficient over all the area? Does the rain come mostly in winter, as in southern California? in early summer, as in the Central Plains? Is it quite well distributed throughout the year? How about the temperatures in summer and in winter? Nearly all the South has a frostless season of at least seven months. How long is the growing season in your community? Why is the South sometimes visited by cold waves in winter? What disadvantage is this? How is it an advantage as far as human energy is concerned?

Are farms here large? What is a plantation? a ranch? Do most farmers own the land they cultivate? (About half the farms are cultivated by tenants. Is this a good thing?) Do many of the people live on farms? Is the land high-priced?

What are the leading food crops grown in the South? Do these require many farm laborers? Is farm labor abundant here?

Summarize all the points favorable to farming in the South. Find reasons to show why agriculture is the most important industry of the South.

2. *Foods furnished by the South.* (Statistics from *Blue Book of Southern Progress*, 1923.)

(*a*) *Cane sugar.* The South furnishes 25 per cent of the country's sugar. What soils are suited to sugar cane? What amount of rainfall? How long a frostless season is required? How is ground prepared for cane? How is cane planted? How cultivated? How harvested? How is the cane taken to the mill? Describe briefly how sugar is made.

Where are the sugar-cane areas? Is more land available for cane? Why is it not all used?

Compare sugar cane and sugar beets as to the following points: climatic requirements, soil requirements, labor requirements, sugar content, yield per acre, processes of sugar making, and by-products. (*Journal of Geography*, 1920, Vol. 19, page 255.) Why does not our country produce all the sugar needed, instead of importing so much?

(*b*) *Rice.* The South furnishes about 80 per cent of the country's rice. (*Journal of Geography*, November, 1922.)

What are the best conditions for growing rice? (Air and soil both wet.) Tell how the ground is prepared for it; how it is planted; how the fields are flooded; how the crop is harvested: threshing, hulling, polishing. Where are the best rice areas? How is rice shipped from Louisiana to New York? How is rice packed when you buy it at the grocer's? Do you know a good way to cook rice?

(*c*) *Fruits and vegetables.* The South produces 91 per cent of the sweet potatoes, 90 per cent of winter and early spring vegetables, 40 per cent of the cabbages, 40 per cent of peaches and citrus fruits, 28 per cent of the berries, 25 per cent of the apples, 15 per cent of the pears of the country.

What fruits and vegetables do you get in your home market from the South? Find out, if you can, just where they come from. What are some reasons for the high rank of the South in winter and early spring vegetables? (Mild temperatures, abundant rain, cheap fertilizers, labor supply, fast trains to Northern markets, etc.) Why does the South rank higher than the Pacific states in vegetables? Locate on a map the truck-farm area of the South. Trace railroads from these areas to Northern and Northwestern markets. Where is the citrus-fruit area? Why is it so small? Why does California grow more citrus fruits than the South? Where are pineapples grown? Under what conditions do they grow best?

(*d*) *Meat.* The South has about 35 per cent of the hogs, 33 per cent of the cattle, and 19 per cent of the sheep of the country.

What advantages has the South for the live-stock industry? What food for stock is grown here? Judging by the rainfall and the temperature, what opportunity is there for pasture and for hay? Must stock here be warmly housed in winter? What disadvantages does a southern country offer? To what markets are Texas cattle sent? Where in the South would you expect to find sheep? Why are there so many more hogs than sheep? Describe how hogs may feed on mast; on peanuts.

(*e*) *Sea foods.* Find out about oyster beds along Chesapeake Bay. What kind of waters do oysters like? What temperatures? What do they feed on? How are oysters gathered? How sent to market?

Read about shad, herring, and any other sea food you can find which is abundant in the South.

(*f*) *Corn.* The South furnishes about 35 per cent of the country's corn.

Turn to the study of the Central Plains to find a discussion on corn. Find reasons why the South, though not in the corn belt, is an important producer of corn. How do the people of the South use corn?

3. *Clothing material furnished by the South.* The South furnishes almost 100 per cent of the country's cotton. What are some uses of cotton you can name? (Clothing, household linen, used in making automobile tires, garden hose, etc.) We have seen by the map that most of the cotton is grown on the Coastal Plain. Let us see why that is such a good cotton area. What does cotton require as to soil, temperature, amount of rainfall, length of season without frost? Why does cotton not grow well in the corn belt? the wheat belt? How is the ground prepared for cotton? How is cotton cultivated? How picked? Find how cotton and corn are somewhat alike in planting, cultivating, and picking. How much hand work is required for cotton? How much of the work can be done by machinery? What enemies has the plant? How is the South fighting the boll weevil?

How do they get the seeds out? (There is a cotton gin

at almost every country store. The ginner keeps the seeds as payment for his work. He puts them through the seed mill, where they are crushed to make oil or are ground into meal. What use is made of the oil and the meal?)

How is cotton baled for shipping? How are the bales taken to the seaport? Describe the big cotton warehouses at New Orleans or Galveston. Name other cotton-shipping ports.

Where are the Southern cotton mills located? the Northern mills? What foreign countries also have great mills? How is cotton spun? woven into cloth? Name several kinds of cotton cloth. How is the cloth dyed? What is meant by *prints?* How does gingham differ from percale or calico?

What other countries of the world raise cotton? Why do we import some cotton from Egypt? What are some of the reasons why the South ships away so much of her cotton, instead of manufacturing it all at home?

Why do the cotton-belt farmers now plant a great variety of crops, instead of putting most of their acreage in cotton? What are the risks in one-crop farming? Is the same thing true in the wheat belt?

What opportunities does the South offer for manufacturing?

1. What raw materials are found here? (Cotton and cottonseed, lumber products, fruits and vegetables, sea foods, sugar cane, minerals for making fertilizers, iron ore, petroleum, etc.). Add others to this list. What articles might be manufactured from such materials? Does the country need these?

2. Has the South much fuel or water power? Find out what fraction of the country's coal output comes from the South. Is it high-grade coal? Where are the coal fields? (See coal map.) Where are the Southern oil fields? the natural-gas areas?

What are some of the water-power possibilities? (See *Blue Book of Southern Progress*, 1923, pages 107–108, for map and description.) What special advantages has the South for the development of water power? How does the distribution of rainfall throughout the year favor it? How

do the mild winters favor it? What is meant by the *Fall Line?* Where is it? Name four cities on this line. What is the chance for abundant labor supply? (Judge by the density of white population the possibility of using negroes for work in factories, the opportunities for getting foreign immigrants.) Could the South support a larger population?

Are transportation facilities provided: railroads, automobile highways, river traffic, seaports? Does the Panama Canal help the South? What advantages has New Orleans? Galveston? Mobile? Savannah? Charleston? Wilmington? Baltimore? Where could the South sell her manufactures? (Home demand; demand in other parts of the country; foreign markets.) What is now being manufactured in the South? Make as complete a list as you can of articles made here. What are the leading manufacturing cities? Find reasons for their supremacy. What advantages made Baltimore first of the South in population?

Some suggestions for children's activities.

1. Model the area in sand. Build up the sand to show the Appalachians, parts of the Ozark Plateau, and the Great Plains. Locate six rivers and ten cities.

2. Groups of children might dramatize selected events in Southern life and industry, such as a scene at the wharf in New Orleans; in the oil fields of Oklahoma; in the orange groves of Florida; in the rice fields of Louisiana; mountain life in eastern Tennessee; a group of capitalists discuss Atlanta as a place to set up a farm-implement factory; etc.

3. Have an exhibit of Southern products. Include pictures as well as samples of any materials which the South contributes to us.

4. Have children give talks on selected subjects such as (*a*) my visit to El Paso, (*b*) a winter vacation at Palm Beach, (*c*) my trip down the Mississippi, (*d*) an automobile trip through the South, (*e*) why I should like to live in the South, (*f*) my visit to our National Capital.

5. Make a booklet of the South. Include in it maps,

pictures, drawings, clippings, and brief original write-ups of the more important Southern interests.

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MCMURRY AND PARKINS: *Elementary Geography*, pages 101–120.
SMITH: *Commerce and Industry*, pages 116–120, 209–217.
—— *Human Geography*, Book I, pages 111–136.
TARR AND MCMURRY: *Geography*, First Book, pages 71–90.
TOWER: *The Story of Oil.*
WHITBECK AND FINCH: *Economic Geography*, pages 88–104.
WILKINSON: *The Story of the Cotton Plant.*

UNIT 5. THE NEW ENGLAND AND MIDDLE ATLANTIC STATES

Time required: About 4 weeks

Finding the starting point.

1. Places in this section where we have been. Experiences at summer resorts. Places where friends and relatives live. Family stories of grandparents who lived in this section. Persons we know who came from this section. Colleges in these states that our friends attend.

2. Things we have in our homes which come from here (a good way to prepare this list is to make a collection of advertisements about familiar articles made in this section): clocks, watches, jewelry, knives and forks, electric supplies, phonographs, household linens, rugs and carpets, ready-made clothing, shoes, bicycles, books, papers and magazines (*Youth's Companion*, *St. Nicholas*, etc.), fish, cranberries, maple syrup, etc.

3. Interesting persons we associate with this part of the country: Edison, Roosevelt, John Burroughs, Jacob Riis, Washington Irving, Longfellow, Whittier, Benjamin Franklin, John Adams, William Penn, Henry Hudson, Roger Williams, etc.

4. History stories we recall about this section — stories of exploration and discovery, colonial stories, tales of Revolutionary days, etc.

5. Books, stories, and poems we like about this area: "Rip Van Winkle," "The Legend of Sleepy Hollow," "Snow Bound," "Paul Revere's Ride," "The Great Stone Face," nature stories by C. G. D. Roberts, stories by Sarah Orne Jewett, Louisa M. Alcott, Laura E. Richards, etc.

6. Places the children think they would like to see: Niagara Falls, the Erie Barge Canal, the Statue of Liberty, Ellis Island, the Woolworth Building, Plymouth Rock, the Palisades of the Hudson, the West Point Military Academy, etc.

Reading the map. *Maps used:* physical, political, temperature, rainfall, population, coal, forest.

1. As I look at this section on the map of the United States, it seems very small. I wonder why it is so important, since it is the smallest division. Does it have the greatest population?

2. It extends the farthest north of any part of the country. I should expect cold winters in Maine.

3. It has many mountains. Very little of the area is in lowland, except along some rivers and around the Great Lakes and the seacoast. I do not expect to find it a great farming region.

4. It touches the Central Plains and the Coastal Plains. They would probably be good neighbors to this small highland area, because they are the best farming regions in the country.

5. The coast line is very much broken. I think there will be many good harbors. There are many little islands around the New England coast. This makes me think of Alaska.

6. Two rivers, the Hudson and the Connecticut, flow almost straight south. The Susquehanna and the Delaware twist about.

7. New England is almost fenced off from New York by a line of mountains. Wouldn't that interfere with railroads?

8. In New York, I see a break in the Appalachian highland, so there is an easy passage from the Hudson River to the Plains around the lakes. (The teacher suggests that they examine the entire length of the Appalachians to see if there is another such passageway. Then, will this one pass be a great advantage to New York, as well as to the Central Plains?)

9. By the rainfall map, all the area gets sufficient rain.

10. The population map shows this is the most densely populated part of the country. I wonder why? The population is not distributed so evenly over this section as over the South. Northern Maine is almost empty.

11. Railroads are thick here, but they are not so evenly

distributed as on the Central Plains. I think the mountains interfere.

12. The coal map shows that Pennsylvania has large coal fields. New England has none.

13. This section touches Canada. I wonder if it has much trade with Canada.

14. There are many lakes here. Were they caused by the glaciers?

Discovering interest centers. I should like to visit New York and see the high buildings. I want to find out about Niagara Falls and the water-power plants there. I should like to know more about Boston and Bunker Hill and Plymouth Rock and other historic places. I should like to ride down the Hudson in a big boat. The Pennsylvania coal mines interest me. I will find out about the fishing town of Gloucester; we get mackerel from there. I have heard about the paper mills in Maine, and should like to learn more. I should like to study about Pittsburgh, and how the big blast furnaces work. Why does so much of our ready-made clothing come from this area? The woolen mills interest me. Why is this the most thickly populated part of the country? How did it happen that New York became the largest city? How would farming here differ from farming in the Central Plains or the South? Is lumbering here different from that in Oregon? What is a maple-sugar camp like?

Working out some of the problems. *How can this small area support so large a population?*

1. *Some figure facts.* Get figure facts as to the area and population of this section. Divide population figure by area figure and find density per square mile. Find what fraction of the country's population belongs here. What per cent of the people here live in cities. Compare with the South in per cent of city people.

From the population map, decide where the spots of greatest density are; of lowest density; turn to the physical map to find some reasons for the differences. Why has Pennsylvania dense areas at the west and east and rela-

tively sparse areas near the central part? Does the coal map help to explain this? Why are the three northern states in New England so sparsely settled, while the three southern states are crowded? New York has a rim of dense population along the coast, another dense belt follows the Hudson, then bends westward toward the Great Lakes. Name some of the large cities in these densely populated areas. Name some physical features, as the Catskills, which seem to hinder dense settlements, and others, as the Connecticut Valley, which encourage them.

2. *Conditions that help to determine the population of the area.*

(*a*) *Dense population and coal.* We have learned that an area where there are many kinds of manufacturing can support a large population. One of the first requirements for extensive manufacture is coal, or some other form of fuel. Coal attracts great industries. Let us find out about the possibilities for fuel and power in this area.

Turn to the coal map and locate the coal areas of Pennsylvania. Compare with the population map. Do you find a relation between the coal areas and dense population? Find statements in your books as to the bituminous area of western Pennsylvania; the anthracite fields in the eastern part. What large cities have grown up in each area? (Pennsylvania produces about one third of the country's coal tonnage. What part of the anthracite tonnage does she produce?)

Describe a coal mine (Allen: *Industrial Studies: The United States*, pages 138–165. Carpenter: *New Geographical Reader: North America*, pages 283–302), its shafts, tunnels, lighting, ventilation, drainage; the work of the miner — blasting, removing coal; the work of the breaker; how coke is made; uses of coke; by-products of coke making.

What waterways provide means of cheap transportation for bituminous coal? How is anthracite coal taken to the seaports? We notice that New England has no coal; yet her seaboard population is very dense. This calls for coal.

How is Pennsylvania or Virginia coal sent to New England? Would freight cost be very great? How far is New York City from the anthracite field? Does this help to explain why New York has grown so great? How far is the bituminous area from Lake Erie? Trace the railway to the lake. How is coal shipped on the lakes? How would Buffalo get its coal supply?

Other sources of power: oil and natural gas. Where found in this area? Importance in industry?

(*b*) *Dense population and water power.* Where is Niagara? Is it well located for development and distribution of power? What is the height of the fall? Describe water-power plant here — how water is conveyed from the river, above the falls; how it drops down immense steel tubes upon turbine wheels; how the used water is led off and emptied into the Niagara gorge. (Carpenter: *New Geographical Reader: North America*, page 278.) Why is power development here so satisfactory? What horse power is developed? Name some cities to which this power is sent. Is this power as cheap as coal power? What manufactures has Buffalo?

New England also has much water power. Turn to the physical map and notice the number of rivers; what is their general direction? How many can you find which have their sources in lakes? Why is this an advantage in a water-power stream? From the rainfall map, determine the average yearly rainfall here. How will this affect the streams? Is there a long dry season in New England? What difference would that make in water-power development? Are New England streams usually rock-bedded? Why an advantage? The Missouri River (Central Plains) in its widest parts has neither rock beds nor rock banks. Do you wonder that there are no great water-power plants along the Missouri?

Another advantage of New England streams is that in many instances the falls of the river are not very far from the mouth. Show how glaciation helped to bring this about. Why is this favorable? Locate four or five cities which have developed at or near falls. What is manufac-

tured at Lowell, Lawrence, Nashua, Manchester, Fall River, Pawtucket, etc.? Water power in these cities must be supplemented by coal power. Where does the coal come from?

(*c*) *Dense population and raw materials.* What raw materials are found here which may be used in manufactures? Iron ore, cement rock, brick clay, glass sand, lumber, fish, fruits and vegetables (canning and preserving). Add to this list as you find other materials mentioned. Is the variety and amount of materials as great as that found in the Mid-West? in the South? Where are the centers of manufacture of iron and steel? What advantages has Pittsburgh? Bethlehem? Buffalo? Philadelphia? (Compare with Gary and Birmingham.) Describe a blast furnace. What is pig iron? What is meant by the Bessemer process in steel making? (Allen: *Industrial Studies: The United States*, page 176. Carpenter: *New Geographical Reader: North America*, page 292. *Journal of Geography*, April, 1923.)

What kinds of iron and steel articles are made in these great centers? What is made in New England? Why are the articles calling for little raw material but much workmanship more profitably made in New England? Where do hooks and eyes, for instance, come from? Do steel rails come from the same part of the section? Are agricultural implements made extensively here? Why not? Where is shipbuilding carried on?

Cement rock is abundant here, as in many other parts of the United States. Why does this section lead in cement manufacture?

Where are the forest areas of this section? Describe a lumber camp in Maine. How is it unlike an Oregon camp? The wood useless for lumber may be used in what ways? Describe the processes of making paper (pulp making, pressing into sheets, sizing and finishing). (Allen: *Industrial Studies: The United States*, pages 265–266. Smith: *Commerce and Industry*, page 205.)

Fish, fruits, and vegetables call for many workers. Where are the fishing grounds? Kinds of fish; methods of fishing

(seining and trawling); curing and canning; dangers of fisherman's life. Products from cod. Gloucester, an interesting fishing city. (Allen: *Industrial Studies: The United States*, page 287.) Where are fruit areas? truck farms? Why are the lake plains well located for fruit growing?

What raw materials are brought in from outside? (Cotton, wool, iron ore, copper, hides, sugar for refining, etc.) Why does it pay to bring such materials to this area for manufacture? How can New England cotton mills compete with Southern mills? In which section is the home market for the goods greatest? Which has more abundant labor supply?

Where are the great woolen mills? Where do they get their wool? Is there much demand for woolen goods in this part of the country? Where is rug and carpet making extensive?

Where are the shoe manufactures? How can they compete with those of the Mid-West? Where do the hides and skins come from? Describe a visit to a great shoe factory.

(*d*) *Dense population and energizing climate.* We call a climate energizing if it makes people feel like working. Scientists tell us the best climates for developing human energy have winters that are not too cold, and summers not too hot; there is rain enough for crops, and the air has a favorable amount of moisture; there must also be changes in temperature, air pressure, etc., often enough to be stimulating. See the temperature and rainfall maps for this area. Find January and July temperatures; are they extreme? Is the rainfall sufficient and well distributed throughout the year? Is this area visited by many cyclonic storms (highs and lows)? Judging by the coastal position, do you expect favorable humidity in the air? Find statements in your books about the climate, and reach a conclusion as to whether this is a good climate for human energy. Judging by the many famous men and women this area has produced, what is your conclusion? How does this area compare with the corn belt or the cotton belt in climate? in population?

In the high latitudes of this area the summer days are

long, while the winter days are short. Are the winter days in Maine as long as those in Florida? Does this affect food production? What effect will the highlands have on the climate?

(*e*) *Density of population and coastal location.* Describe carefully the coast line of this area, as you interpret it from the map and from statements in your books. How does it differ from the Gulf coast? the Pacific coast? Name five large seaports along this coast. Why is there not a great seaport on Cape Cod? on the coast of eastern Maine? Judging by the population map, does the coastal area favor dense population? What parts of the coast have rather sparse populations? Can you think of some reasons for this? The largest port — New York City — developed on New York Bay, rather than on Chesapeake, Delaware, or Boston bays. Let us find some reasons for this. From the maps, discover such facts as the following: New York is about halfway down the Atlantic coast; it has the Hudson, a tidal river; the Hudson Valley is behind it; the Mohawk Valley gives an easy pass through the highlands, and connects the Hudson Valley with the Lake Plains and Central Plains; the Coastal Plains to the south afford easy railroad connections; the hinterland of New York City includes much of the food-producing, textile-growing, and coal-producing areas of the country and extends almost to the Rockies. Find references in your books as to the harbor of New York (depth of water, safety of the channels, freedom from fog and ice, wharfage room, anchorage room, etc.). Write a page telling some reasons why New York has become such a large city. In the same way, study Boston and Philadelphia. Which port is nearest to Europe?

(*f*) *Density of population and farming land.* What did you notice as to density of population in the Central Plains, where farming is the chief industry? in the South? Why is farming not usually the chief business in densely populated areas? (India and China are interesting exceptions.) Find in your textbooks references to farming in New England. Does the surface of the country encourage farming?

How did the glaciers affect the surface? the soils? Can New England compete with the Mid-West in grain production? What special crops are grown here? Account for tobacco growing in the Connecticut Valley; corn (for canning) in Maine; cranberries, potatoes, apples, etc. Would you expect large farms here, as in Iowa or Kansas? Where is the best farm land? Why are there many abandoned farms? Why is it that foreigners settle on some of the hill farms and prosper? What is a good use for rocky and hilly fields?

New York has more area in plains. Where are these lowland areas? What special crops are grown on the Lake Plains, and why? Dairying is a form of intensive agriculture which is profitable under favorable conditions. Why does New York rank so high in dairying? (Good forage crops, rapid transportation, dense population, etc.) What right of way have the milk trains? Does dairying give employment to more people than ordinary farm work? What type of farm is found in Pennsylvania? in New Jersey? Do truck farms and fruit farms call for many laborers?

In general, do conditions in this section encourage extensive farming? Write a paragraph showing how the type of farming profitable here calls for many helpers. Can this section produce food enough for its many people? Where will it get flour, meat, sugar, chickens and eggs, butter, etc.?

(*g*) *Density of population and inland transportation.* What rivers are used extensively for transportation? Find references in textbooks and encyclopedias to the Hudson, Connecticut, Delaware, Susquehanna, etc. Discuss the Erie Barge Canal, the Cape Cod Canal, and the Chesapeake and Delaware Canal.

Trace on the railroad map the New York Central lines from New York to Chicago; the Pennsylvania lines; the Baltimore and Ohio. What river valleys help to give easy grades through the mountains? Trace the Boston and Albany route, in New England. Read about the Hoosac Tunnel and how it cuts through the Berkshires. Also, trace the New York, New Haven and Hartford, the main railroad

line of New England. Now compare the railroad and population maps. Is the thickest net of railroads found where the population is densest?

An automobile highway map will help to explain the opportunities for transportation here. Is much business done by motor trucks in New England? Why?

References

ALLEN: *Industrial Studies: The United States*, pages 138–182, 287–293, 311–313.

ATWOOD: *New Geography*, pages 5–14, 26–38.

BRIGHAM: *From Trail to Railway through the Appalachians.*

—— *Geographic Influences in American History*, pages 70–104.

BRIGHAM AND MCFARLANE: *Essentials of Geography*, First Book, pages 90–97, 99–107.

CARPENTER: *New Geographical Reader: North America*, pages 61–123.

CHAMBERLAIN: *The Continents and Their People: North America*, pages 11–46, 111–147.

DODGE: *Elementary Geography*, pages 82–101.

DRYER: *Elementary Economic Geography*, pages 182–268.

FRYE: *New Geography*, pages 113–131.

GOODE: *School Atlas*, pages 29–45, 48.

JOHNSON, C.: *The Picturesque Hudson.*

KELLER AND BISHOP: *Commercial and Industrial Geography*, pages 248–265.

LONGSTRETH: *The Adirondacks.*

—— *The Catskills.*

MCMURRY: *Type Studies from the Geography of the United States*, pages 23–38.

MCMURRY AND PARKINS: *Elementary Geography*, pages 67–83.

SHACKLETON: *The Book of New York.*

SINGLETON: *Great Rivers of the World.*

SMITH: *Human Geography*, Book I, pages 136–165; Book II, pages 118–135, 173–178.

SOUTHWORTH AND KRAMER: *Great Cities of the United States*, pages 105–136.

TARR AND MCMURRY: *World Geography*, pages 111–123, 129–138, 143–146.

WHITBECK AND FINCH: *Economic Geography*, pages 161–191, 225–233.

UNIT 6. CANADA, NEWFOUNDLAND, AND LABRADOR

Time required: 2 weeks

NOTE. A study of Alaska, following much the same plan, may be included in this unit, if desirable.

Introduction. Some of the following topics may serve to introduce this study of our northern neighbor in an informal discussion with the children:

1. Items of current interest about Canada.
2. What we know about the Eskimos of northern Canada and Labrador.
3. Persons we know who have invested in Canadian wheat land.
4. Canadian soldiers and their record in the World War.
5. Persons we know who live in Canada.
6. Travelers' accounts of trips through the Canadian Rockies or along the St. Lawrence River.
7. Stories of the Klondike.
8. Adventures of the deep-sea fishermen on the Grand Banks.
9. Stories of Dr. Grenfell and his work in Newfoundland and Labrador.
10. Tales of the Northwest Mounted Police.
11. Furs which people wear. Stories about the Hudson's Bay Company.
12. Incidents from Kipling's *Captains Courageous;* Wallace's *The Lure of the Labrador Wild.*
13. Longfellow's description of the village of Grand Pré in "Evangeline."
14. History stories: the capture of Quebec, the expeditions of Cartier, La Salle, Champlain, and others.

Finding the problem. The problems which follow are typical of those which the children may be led to discover for themselves as a result of the introductory discussion. They should then select one of their own problems as an interest center for the study.

1. Why do not more people live in such a large country?
2. Why do Americans sometimes go to Canada to make homes for themselves?
3. Why are Canadians so proud of their country?
4. Could Canada provide homes for people from overcrowded lands?
5. Why should Canada and the United States be good neighbors?
6. Does a Canadian boy or girl have as much opportunity to advance in the world as an American boy or girl?

If we choose the first problem for our study, it will help us to understand Canada's present development and to see something of her possible future. A fuller statement of the problem is as follows: *Canada is larger than the United States. Its population, however, is less than one tenth that of our country. What conditions account for this? What are some of its possibilities for the future?*

The working out of the problem involves the selection and organization of the data essential to the solution of the problem, together with a statement of conclusions derived from them. Materials called for are maps, pictures, books, magazine articles, newspaper clippings, etc. The study of the map, however, should be the first form of investigation for any problem.

What does the map tell us regarding Canada? The map of Canada tells so many large, simple, and significant truths that it is especially well adapted to the teaching of map reading. With some care in questioning on the part of the teacher, the children may discover for themselves most of the following items, or similar ones. Two recitation periods could be well spent in this work. Begin with the physical maps of North America and of Canada in the textbooks. Then use climate, product, railroad, and population maps. Every child should be able to read the map fairly well before he takes up the other reading matter in the books. Some of the discoveries of these young map readers might be written in brief, clear statements. They will help to answer the problem we have selected.

Map facts the children will find.

1. Canada is in the widest part of the continent.

2. Part of Canada is so far north that the Arctic Circle crosses it. This makes us think of long cold winters, with almost no sunshine.

3. There is a wide belt of mountains along the west side (just as in the United States), but it does not bulge eastward so far and so leaves more room for the plains.

4. The Pacific slope in Canada does not have a chain of valleys to correspond with the Great Valley of California or the Willamette Valley in the United States.

5. There are many islands around all the coasts of Canada. Those on the north have no towns mapped on them.

6. Half of the Pacific coast line of this region belongs to Alaska and not to Canada.

7. Canada, unlike the United States, has almost no coastal plain along the Atlantic.

8. A long stretch of the Atlantic coast belongs to Labrador and not to Canada.

9. The St. Lawrence River is so wide at the mouth that the tidewater can come in for a long distance. There are several large cities along this river valley, but none are near the mouth.

10. The Great Lakes form part of the Canadian boundary. There are not so many large cities on the Canadian side of the lakes as on the American side. The only province which touches the Great Lakes is the large, irregular one called Ontario.

11. Unlike the United States, Canada has a wide plain in the north which slopes toward the Arctic Ocean. The map does not show any cities on this plain, although there are several forts. These make us think of Hudson's Bay Company and its Indian hunters and trappers. There are two large territories or districts mapped on this plain.

12. Canada, like the United States, has a central plain.

13. There are many lakes on the central plain and on the Arctic slope. This would not be true if the climate were dry and hot.

14. Canada has many rivers. Some short ones flow into Hudson Bay and the Great Lakes; a very long one, the Mackenzie, flows into the Arctic Ocean. This makes us realize how wide the Arctic plain is.

15. Canada has a great bay in the northeast. It is not so large as the Gulf of Mexico and does not have so many towns on its shores. The provinces of Ontario and Quebec border on this bay.

16. The Pacific coast line is very irregular, and looks as if it might have many good harbors because it is a fiorded coast, but the map shows few cities here.

17. Canada is divided into a few provinces instead of into many states. Two of these are on the central plain. The product map shows that wheat is grown here.

18. Three small provinces are in the eastern part. This makes us think of the small states in New England. All the other provinces are very large.

19. The four provinces in the western half use the 60th parallel for their northern boundary. There are almost no towns or railroads north of this parallel.

20. The railroads are all crowded into the southern part of Canada. All the railroads go around the southern end of Lake Winnipeg. This reminds us of Lake Michigan and Chicago. At several points the railroads cross over into the United States. It will be interesting to find out just why they cross at these points.

21. The province of Quebec has few towns or railroads north of the 50th parallel.

22. There are several places where *furs* and *timber* are shown on the product map. This makes us think of animals that live in forests or near rivers — the bear, fox, mink, beaver, otter, lynx, etc. Perhaps some of the furs we wear came from these places.

23. The United States is the only near neighbor with which Canada could have much trade. All but two of the nine provinces border on our country.

How do the facts you have read in the map help to answer our problem?

Problems within the problem. The map has told us that parts of Canada are too mountainous or too cold or too densely wooded to be very attractive to people who are seeking new homes. In fact, almost one fourth of the land in the Dominion has not even been explored, and a much larger part has not been settled. It is estimated that less than one third of the land area could ever be used for farm land. Let us find out who live in Canada, and what it has to offer its people.

1. What kind of people live in Canada, Newfoundland, and Labrador? (Eskimos in Labrador and on the Arctic plain. Indians in reservations throughout the country. French-speaking people in the province of Quebec; English-speaking people in other provinces. A few Hindus and Japanese in British Columbia.)

2. Where is the population the most dense, and why? (To answer this problem, we must know whether the climate and the surface favor dense population.)

(*a*) What proportion of Canada has a climate favorable to a dense population. Compare the eastern provinces with New England in climate; the interior with Minnesota; the Pacific with Washington and Oregon; the northern districts with Alaska. How does the Chinook wind benefit Alberta?

(*b*) What proportion of Canada has surface and soils favorable to a dense population?

(*c*) Where is the largest cluster of cities? Why?

3. What do the people do for a living?

(*a*) In the central plain? in British Columbia? in the provinces along the Great Lakes and the St. Lawrence River?

(*b*) Are the natural industries such as to require many workers or few? What is true for wheat farming? lumbering? mining? fishing? the fur trade? fruit raising? dairying?

4. Have Canada and Newfoundland minerals which favor industrial development?

(*a*) Coal. Canada is second only to the United States in amount of available coal. Hard coal is found in western Alberta; soft coal in Nova Scotia, Alberta, British Columbia. Are the coal fields located as favorably as those of the United States?

(*b*) Iron. In Newfoundland, Nova Scotia, Quebec, etc.

(*c*) Petroleum, copper, asbestos, silver, gold, nickel, etc.

5. Does Canada have abundant water power to use in her industries? Notice the many rivers with falls, fortunately located in some of the places where coal is lacking and where raw materials are abundant.

6. What manufactures could Canada develop?

(*a*) From her own raw material: flour mills, packing plants, paper mills, lumber mills, steel works, leather works, fruit canning, fish canning, butter and cheese making.

(*b*) Articles she now imports: farm machinery, tractors, automobiles, boats, railroad cars, rails, rubber goods, clothing, etc.

7. What parts of the country have the best advantages for water transportation? Are the railroad lines so located as to encourage the settling of the new areas? How are the railroads located with regard to farm lands? timber areas? ore fields? Then where could mills be located?

8. What advantages has Canada for foreign trade?

(*a*) Location, midway between Europe and Asia, and adjoining the United States.

(*b*) Excellent harbors, like those of Halifax, Quebec, Montreal, Vancouver, etc.

(*c*) Navigable lakes and rivers.

(*d*) Transcontinental railroad lines.

(*e*) An abundance of raw materials which are needed in many countries. Make a list of the chief exports, and note to what countries they are sent.

(*f*) Necessity for importing foodstuffs, textiles, and other products from warmer lands. Make a list of the chief imports, and note from what countries they are sent.

9. Could many more persons find homes and employment in Canada?

Summary of problem. In one wide column, sum up all the reasons you can find for the present sparsity of population in Canada. In a second column, sum up all your reasons for thinking whether or not Canada can take care of a much larger population.

Children's activities. What the children can do to make Canada more real to them.

1. *Organization of tourist parties.* The children are divided into three groups. One group plans a trip from its home town through the Canadian Rockies to the Pacific coast. The second group takes a journey by boat down the Great Lakes and the St. Lawrence River. A third, with a thirst for adventure, canoes down the Mackenzie River to the far north. Each group, after providing itself with railroad and steamboat maps and folders, pictures, books of travel, etc., selects its own routes, schedules the cities visited, describes places of scenic or historic interest on the way.

2. *Dramatizations.* (*a*) A scene in a trading post of the Hudson's Bay Company when the Indians come up with pelts. The agent receives and examines the pelts and gives in exchange merchandise from his stores.

(*b*) A simple pageant may be worked out by the children in which they symbolize different parts of the country: the Wheat Lands, the Fruit Lands of the Southeast, the Fur Regions, the Forest Lands, the Land of the Eskimo, the Fishing Grounds, the Mining Lands, etc.

(*c*) A list of ten leading cities is made. From these cities, each child chooses one to represent, so that the others may guess the one he has taken.

3. Oral reports on such topics as (*a*) a maple-sugar camp, (*b*) my trip through the big woods, (*c*) a summer in the Klondike, (*e*) life on a wheat farm in Manitoba, (*f*) a hunting lodge in Quebec, (*g*) fur farming.

4. Booklets, with cover page decorated with a maple-leaf design.

5. Canadian songs: "Canadian Boat Song," "The Maple Leaf Forever," etc.

References

ALLEN: *Industrial Studies: North America*, pages 210–274.
ATWOOD: *New Geography*, pages 103–110.
BEALBY: *Peeps at Many Lands: Canada.*
BRIGHAM: *Commercial Geography*, pages 287–302.
BRIGHAM AND MCFARLANE: *Essentials of Geography*, Second Book, pages 198–209.
CARPENTER: *New Geographical Reader: North America*, pages 418–444.
CHAMBERLAIN: *The Continents and Their People: North America.*
COE: *Our American Neighbors.*
FRYE: *New Geography*, pages 169–173.
GOODE: *School Atlas*, pages 16–18, 24–27.
KELLER AND BISHOP: *Commercial and Industrial Geography.*
MCDONALD: *Our Little Canadian Cousin.*
MCDONALD AND DALRYMPLE: *Betty in Canada.*
MCMURRY AND PARKINS: *Elementary Geography*, pages 156–161.
—— *Advanced Geography*, pages 175–189.
SMITH: *Human Geography*, Book I, pages 165–172; Book II, pages 55–64, 179–181.
TARR AND MCMURRY: *World Geography*, pages 161–170.

For the Teacher

BRIGHAM: *Geographic Influences in American History*, Chapter 4.
CABOT: *In Northern Labrador.*
CAMERON: *The New North.*
COLBY: *Source Book for the Economic Geography of North America.*
COPPING: *Canada Today and Tomorrow.*
GOODRICH: *The Coming Canada.*
GRENFELL AND OTHERS: *Labrador.*
JAMES: *Geography of Canada.*
KELTIE: *The Statesman's Year-Book.*
Oxford Survey of the British Empire.
TALBOT: *The New Garden of Canada.*
WALLACE: *The Lure of the Labrador Wild.*
WHITBECK AND FINCH: *Economic Geography*, pages 253–263.

UNIT 7. MEXICO

Time required: 2 weeks

Introduction.

1. Items of current interest about Mexico.

2. Mexicans we know in our country. What are they like? What is their work? (On the railroad; in the beet fields; in truck gardens; in mines; etc.)

3. Mexican articles in our homes: pottery, baskets, drawn work, souvenirs of travel.

4. Raw materials Mexico furnishes to the United States: chicle for chewing gum, fiber for binder twine, rubber, cabinet woods, etc.

5. Travelers' accounts of Mexico.

6. Stories of early days in Mexico; the Aztecs; the Spanish Conquest.

Finding the problem.

1. Why do so many Mexicans leave home and come to the United States?

2. Why are many American business men interested in Mexico?

3. Is Mexico an attractive country for people who are seeking new homes?

4. Is Mexico as progressive as Canada?

Let us select the last question for our problem, because it will help us the better to understand our nearest neighbors and the conditions under which they live. A fuller statement of the problem is: *We hear more about Canadians and what they are doing in the world than about Mexicans. Is Mexico less progressive than Canada? Why?*

What does the map tell us concerning the location of Mexico?

1. Mexico is in the narrowest part of the continent.
2. It is nearly all south of the 30th parallel.
3. It is crossed midway by the Tropic of Cancer.
4. It extends over 17 degrees of latitude.
5. It is largely on a highland.

6. It faces the widest part of the Pacific Ocean.

7. It has very few islands around it.

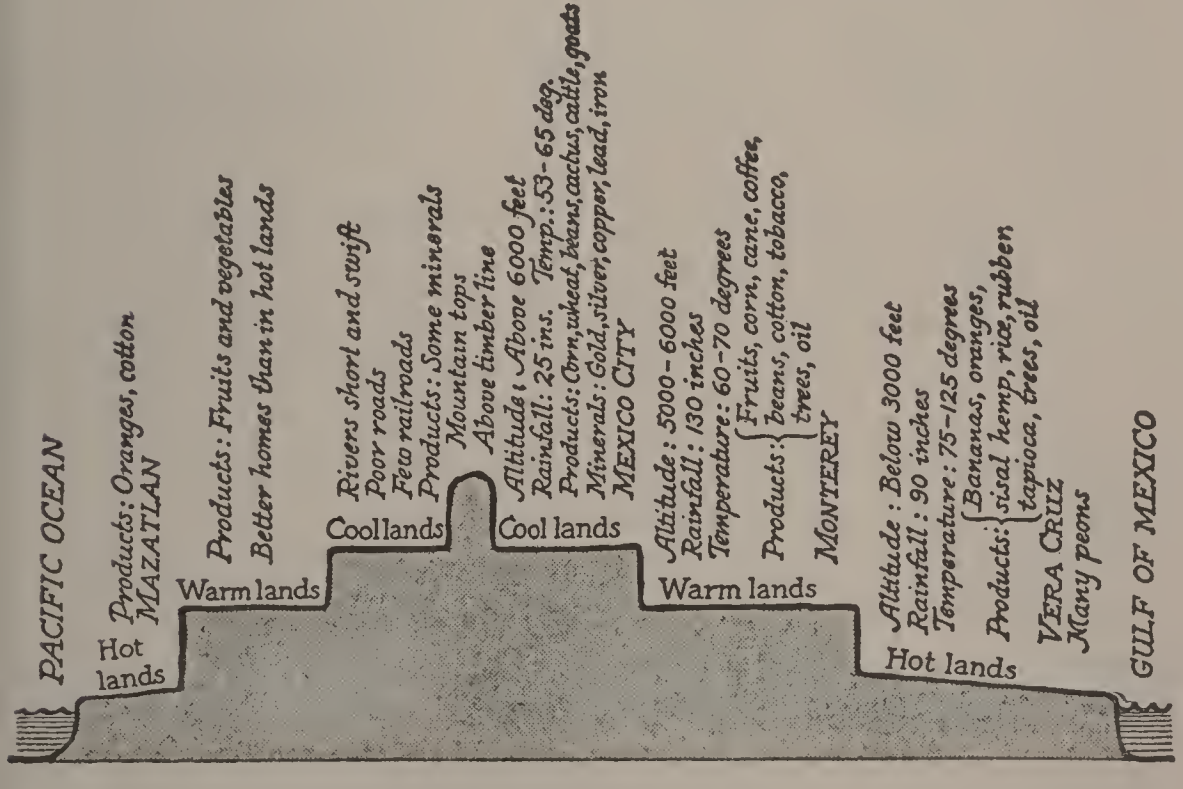
8. Except the United States, most of the neighboring countries are unimportant.

9. Its northern part is in the horse-latitude belt.

10. It is far from Europe and from the densely peopled part of North America. (Estimate the distance from Chicago to Mexico City; New York to Vera Cruz; Liverpool to Vera Cruz.)

Make similar inferences in regard to Canada, and draw conclusions as to which country is the more favorably located.

What does the map tell us concerning the surface features of Mexico and their arrangement? Mexico is something like a *stile*, or set of steps, between the Gulf of Mexico and the Pacific Ocean. Make a diagram to show the general arrangement of highlands and lowlands from east to west. The following will illustrate a simple plan of a cross section.



On lines radiating from each step write (*a*) average elevation, (*b*) average rainfall, (*c*) average temperatures, (*d*) lead-

ing crops, (*e*) a city found here, (*f*) minerals, (*g*) other facts of interest found in your textbooks.

What does the map tell us concerning the climate of Mexico?

1. Mexico is in low latitudes, where the noon sun is high in the sky the year round. There would then be no winter season, except in the highlands or in the extreme north.

2. Mexico is largely in the trade-wind belt. The trades blow over the Gulf of Mexico to reach this country, and so would be rain-bringing winds. The air of the trades would rise on the east side of the stile. Effect on rainfall? It would descend on the west side of the stile. Effect on rainfall?

3. The horse latitudes cross the northern part of Mexico. Effect of this belt of settling air on rainfall?

4. The high plateau that extends from the United States to a point south of Mexico City would probably be much cooler than the coastal lowlands.

5. Consult the rainfall map of North America. Discover what part of Mexico has less than 20 inches of rain. Are the larger cities in this part? Where are the areas of heaviest rainfall? Why there? Is Canada more fortunate as regards rainfall?

6. Consult a map showing the isotherms, or temperature lines, which cross Mexico and Canada. (Atwood: *New Geography*, page 268.) We have learned that the people who live near the January isotherm of 30 degrees and the July isotherm of 68 degrees are usually very energetic. Which of the two countries is the more fortunately situated with regard to these temperature lines?

7. Judging by the rainfall and isotherm maps, what crops could be grown in various parts of Mexico? How does your knowledge of crops in different parts of the United States help you in this?

8. From the physical map and the rainfall map, find parts of the country (*a*) too rough for farming, (*b*) too wet for farming, (*c*) too dry for farming.

Which seems more favorable to the development of an

area — a lowland in the central part, or a highland? Compare Mexico and Canada in arrangement of surface features. From a study of the physical map of Mexico and your diagram, judge the following:

1. The length, character, and usefulness of the rivers.
2. Difficulties in railroading.
3. Parts of the country which could not be easily reached.
4. The best step of the stile on which to live.
5. The worst step of the stile on which to live.
6. The number and character of the harbors.
7. Reasons for the location of the four largest cities.

Compare Mexico with Canada on each one of the seven points mentioned, and draw conclusions.

The following figure facts (in round numbers) will help us in comparing the two countries:

	Mexico	*Canada*
Area	767,000	3,700,000
Population	15,000,000	8,500,000
Railway mileage	15,000	38,000
Illiteracy	75%	17%
Foreign trade	$222,000,000	$1,000,000,000

Why are these facts significant in a comparison of countries? What conclusions do you draw from them?

Problems within the problem.

1. What kind of people live in Mexico? (About half are pure-blooded Indians. Many of the tribes are in the same stage of civilization as that which prevailed in Columbus' time. Nearly one million people are whites, of European descent. The people speak many languages, but Spanish is the most common. There is little race prejudice.) Compare with races and peoples in Canada.

2. How do the upper-class people live? (Homes, occupations, customs, etc.) What do the common people do for a living? (Almost all depend on agriculture. Many work

on the large ranches, or estates, where they are virtually held as slaves. Often as many as 500 families live on one estate and work for the landowner. Wages are very low. The laborers, or *peons,* are not very efficient.) Is there a greater variety of occupations in Canada? Why? In which of the two countries are the conditions better for the workmen?

3. What is the home life of the common people?

(*a*) *Houses.* One-roomed huts of the peons, built of adobe, in the dry northern parts; of wood, with thatched roof, in the rainy parts. Little furniture — mats for beds, no tables or chairs, charcoal stove.

(*b*) *Dress. Men* — coarse cotton trousers and jacket; huge hat, or *sombrero;* blanket, or *serape;* fiber sandals, woven or plaited. *Women* — coarse cotton dress; blue cotton scarf, or *rebose.*

(*c*) *Food.* Thin corn pancakes (*tortillas*), tomato sauce, beans, green peppers, melons, fruits.

(*d*) *Home occupations.* Grinding corn, making tortillas, weaving cloth, making pottery, baskets, drawn work.

(*e*) *Amusements.* Children's games, as leap frog, etc., burro riding, horse racing, bullfighting, cockfighting.

(*f*) *Schools.* Few, and very poorly attended.

Compare with home life of common people in Canada, and draw conclusions.

4. Is Mexico as well provided as Canada with routes of travel?

(*a*) *Waterways.* Compare with Canada in use of rivers and lakes.

(*b*) *Railroads.* Account for the location of the following lines: the road from border of United States to Mexico City; the road from Mexico City to Vera Cruz and Tampico; the road from Mexico City to Manzanillo; the road across the Isthmus of Tehuantepec.

Why are seaports and railroads not found in Lower California?

5. What minerals are found in Mexico which might contribute to her industrial progress?

(*a*) Oil fields, near Vera Cruz and Tampico. Importance of location, output of wells, foreign investments in, etc.

(*b*) The mineral region on the plateau.

Compare with Canada's coal, iron, gold, asbestos, petroleum, etc.

6. Could Mexico develop more manufactures? What is necessary for the development of manufacturing? Are these conditions found here?

(*a*) Raw material (cotton, jute, rubber, sisal, hides, wool, timber, etc.).

(*b*) Power to run the engines: coal, oil, water power. Amount and availability.

(*c*) Cheap labor, with some degree of skill.

(*d*) Transportation facilities.

(*e*) Ready markets.

Compare Mexico and Canada in regard to the present development of their manufactures.

7. With almost twice the population of Canada, Mexico has less than one fourth of its foreign trade. What are some reasons for this?

(*a*) What has Mexico to sell? (See world map of trade routes, in your textbook.) Are these raw materials as much in demand as the raw materials which Canada sells?

(*b*) What does Mexico buy from other countries? From the United States: iron pipes, cloth, flour, sugar, automobiles, shoes, lumber, tires, canned salmon, paper, railway cars, plows, steel rails, typewriters, etc. Study each item to discover reasons why Mexico must buy these articles from a foreign country. Could she manufacture some of them for herself?

8. Why are there so few large cities in Mexico? Compare with Canada.

9. Does Mexico's government take care of her people as well as Canada's?

10. If you were a Mexican, what would you be most proud of in your country? What would you strive hardest to improve?

11. What can the United States do to help her weaker neighbor?

Children's activities.

1. In two columns, headed respectively *Mexico* and *Canada*, record points in which each is superior, and thus keep a score of the two countries, which will be a summary of your conclusions.

2. Plan an automobile trip from your home to some point in Mexico. Trace the route on the highway map, schedule your dates at various stopping places, note the interesting sights on the road, etc.

3. Different groups of children might dramatize selected events in Mexican life. The children should choose the event they wish to present and plan the simple costumes and the action needed. The following is a list which may be suggestive:

(*a*) Grinding corn and making tortillas.
(*b*) Scene in a city market.
(*c*) A Christmas *posada* (festival).
(*d*) Scenes on a coffee plantation.
(*e*) Scenes on a banana plantation.
(*f*) Scenes on a henequen (sisal hemp) plantation.

4. Each child might select a topic for an oral report. Suggestive list: (*a*) the plaza, (*b*) the cathedral, (*c*) the pulque shop, (*d*) the water carrier, (*e*) a bullfight, (*f*) making drawn work, (*g*) how the peons live, (*h*) Yucatan, the Garden of Mexico, (*i*) Lower California, (*j*) irrigation in Mexico.

5. Plan for a Mexican exhibit. Bring Mexican articles, pictures, clippings from magazines, post cards, etc. A committee of children should receive these and arrange them on a table where they may be accessible to all. One child,

appointed as manager, gives an explanation of each article on exhibit to the rest of the class.

6. Booklets on Mexico, containing items of interest selected and written up by the children. The cover page might be in the shape of a sombrero, or it might be decorated with drawings of a banana plant, a coffee plant, etc.

7. Make a sand map of Mexico, and place on the map articles which indicate products from the various parts of the country — rubber, binder twine, chewing gum, cotton, chocolate, jute, wool, etc. (Write to the International Harvester Company, Chicago, for their attractive booklet, "Binder Twine.")

References

ALLEN: *Geographical and Industrial Studies: North America*, pages 275–313.
ATWOOD: *New Geography*, pages 111–124.
BRIGHAM AND MCFARLANE: *Essentials of Geography*, Second Book, pages 211–215.
BUTLER: *Our Little Mexican Cousin.*
CARPENTER: *New Geographical Reader: North America*, pages 444–467.
CHAMBERLAIN: *The Continents and Their People: North America*, pages 194–208.
COE: *Our American Neighbors.*
FRYE: *New Geography*, pages 173–175.
GOODE: *School Atlas*, pages 16–18, 50–51.
MCMURRY AND PARKINS: *Elementary Geography*, pages 161–167.
—— *Advanced Geography*, pages 190–200.
PERKINS: *The Mexican Twins.*
PLUMMER: *Roy and Ray in Mexico.*
SMITH: *Human Geography*, Book I, pages 183–188; Book II, pages 187–193.
TARR AND MCMURRY: *World Geography*, pages 170–177.

For the Teacher

CARSON: *Mexico, the Wonderland of the South.*
COLBY: *Source Book for the Economic Geography of North America.*
ENOCH, C. R.: *Mexico.*
KELTIE: *The Statesman's Year-Book.*
MACHUGH: *Modern Mexico.*
MARTIN: *Mexico of the Twentieth Century.*
WHITBECK AND FINCH: *Economic Geography*, pages 267–273.
WINTON: *Mexico Today.*

UNIT 8. THE DEPENDENCIES OF THE UNITED STATES

Time required: About 2 weeks

This unit provides for a comparative study of the four largest possessions of the United States, using the Hawaiian Islands as a base.

Finding the starting point.

1. What the islands furnish us: sugar, pineapples, etc.
2. What Hawaii makes us think of: the ukelele, plaintive music, surf riding, volcanoes, etc.
3. Travelers' accounts; movies we have seen; stories we have read.

Reading the map. Use the globe, the world map, and a detail map of the islands.

On the globe and the world map, I can find these islands most easily by tracing the Tropic of Cancer west from Mexico: the Hawaiians are just a little south of the tropic. That tells me that they are in the trade-wind belt, and that they will have a high noon sun all the year round. Measuring with a string, I find that they are over 2000 miles from San Francisco or Los Angeles; over 4500 miles from Panama; nearly 3500 miles from Yokohama; and almost 5000 miles from Hongkong.

The group of islands makes me think of a horn, with the little end pointing northwest. The largest island, Hawaii, is at the big end of the horn. From the physical map I can see that the islands are mountainous; there is very little lowland about them. Honolulu, the largest city, is not on the largest island, but is on the southeast side of Oahu.

Finding the problem. The teacher suggests that some people think these islands are the most important possession of the United States. It will be interesting to compare our dependencies in several ways and see why Hawaii ranks so high. Let us select Alaska, the Philippines, and Porto Rico for this comparison.

Using the figures given below, make graphs for our four possessions. They will help us to understand the differences and similarities.

1. *Comparison in area* (square miles, round numbers): Alaska, 590,000; Philippines, 115,000; Hawaii, 6500; Porto Rico, 3600.

2. *Comparison in population.* Alaska, about one-twentieth million; Philippines, ten millions; Hawaii, one-fourth million; Porto Rico, over one million.

Judging by these figure facts, which seems the most important? There are other ways of comparing places besides using figure facts. The class might divide into four groups, each group to study intensively one of the four possessions and to make reports to the rest of the class on their findings. Suggest that each group read the map carefully and write down the best map facts they find. They can use these in the debate that is sure to arise when the comparison becomes more definite. No doubt each group will become strongly partisan; this will motivate the study by giving a spirit of competition to the reports. The children will be very eager to suggest the points of comparison they would like to use, and will probably plan a simple outline, such as the following:

Is this dependency a good place for white people to live? Does it produce things we need, but cannot get at home? Is it well located to be a coaling station? Would it be useful in time of war? Does it cost more to keep the dependency than it is worth? Would it be dangerous to us if some other world power owned the dependency? What kind of people live there? Do they need our help? What do they do for a living? Are there railroads there? good seaports? opportunities for inter-island trade? Is the dependency on or near important commercial routes? Is it too far from great markets to meet competition of other areas, better situated, which produce much the same things? Has it coal or oil? What is the chance for water power? Are there valuable forests? Are manufactures well developed, or do they export most of their raw material? Is the dependency self-supporting; that is, does it furnish most of its food and

material for clothing? Are its products largely luxuries, or are they necessaries? Can the people govern themselves? What is their education? Are they energetic? Are there race problems? How do the different races get along together? Is there much good farming land here? Are the climate and the scenery attractive to tourists? Does the dependency import much from the United States? Could the area support a larger population?

Each group should select two important products of its area and give a complete report on them. The Hawaiian group would probably choose *Sugar* and *Pineapples;* the Philippine group, *Manila hemp* and *Copra;* Porto Rico, *Sugar*, *Coffee*, *Tobacco*, or *Fruit;* Alaska, *Fish*, *Furs*, *Minerals*, or *Lumber*.

Some dramatizations would be effective in convincing the others that your dependency is the best. Select events in the life of your area, and represent them by pantomime and by dialogue. If you could collect articles and pictures for an exhibit, it would help the other groups to understand just how important your area is. Have each member of your group give a short talk, explaining certain parts of the exhibit.

References

ANDERSON: *Spell of the Hawaiian Islands and the Philippines.*
Asia, November, 1921. (Philippine Number.)
ATWOOD: *New Geography*, pages 87–93.
BALDWIN: *Geography of the Hawaiian Islands.*
BLACKMAN: *The Making of Hawaii.*
BRIGHAM AND MCFARLANE: *Essentials of Geography*, First Book, pages 151–153; Second Book, pages 193–197.
CARPENTER: *New Geographical Reader: Australia.*
CASTLE: *Hawaii, Past and Present.*
CHAMBERLAIN: *The Continents and Their People: Oceania.*
DINWIDDIE: *Porto Rico, Its Conditions and Possibilities.*
FRYE: *New Geography*, pages 164–166.
GOODE: *School Atlas*, pages 16–18, 23, 50–51, 87, 96.
GOODRICH: *The Coming Hawaii.*
HIGGINSON: *Alaska, the Great Country.*
Journal of Geography, February, 1923.
KROUT: *Alice's Visit to the Hawaiian Islands.*
LONDON, JACK: *The Call of the Wild.*

McMURRY AND PARKINS: *Elementary Geography*, pages 146–147.
—— *Advanced Geography*, pages 173–175, 428–435.
MITCHELL: *Paz and Pablo* (Children of the World Series).
SMITH: *Commerce and Industry*, pages 468–477.
—— *Human Geography*, Book I, pages 178–183; Book II, pages 344–348, 432–434.
UNDERWOOD: *Alaska, an Empire in the Making.*
VERRILL: *Porto Rico, Past and Present.*
WADE: *Our Little Hawaiian Cousin.*
—— *Our Little Philippine Cousin.*
WHITBECK AND FINCH: *Economic Geography*, pages 241–251.
WHITE: *The Blazed Trail.*
WORCESTER: *The Philippine Islands and Their People.*
WRIGHT: *A Handbook of the Philippines.*

UNIT 9. SOUTH AMERICA

Time required: 6 or 8 weeks

Seeing the continent as a whole.

1. *Introduction.* (*a*) Review Panama Canal and its effect on our trade routes. (*b*) Note well-known products of South America in our stores. (*c*) Persons we know who have been in South America. (*d*) History stories about the continent.

2. *Location.* Latitude and longitude. How will the wide range in latitude affect the variety of products in South America? Note its easterly position as compared with North America. Name bordering waters. Estimate distance from Europe, Africa, Asia, North America.

3. *Form.* On paper, 9″x12″, place the equator, the Tropic of Capricorn, the meridians of 40° and 80° west longitude. With these as guide lines, sketch in the continent. Practice till the child works rapidly and fairly accurately.

Compare in shape and number of indentations and projections with North America. Which continent has the better coast line for the development of commerce?

Drill in quick identification of the following: The mouths of the Amazon, the Orinoco, and the La Plata rivers; the Gulf of Guayaquil, Rio de Janeiro Bay, Gulf of Panama, Straits of Magellan, with the islands of Tierra del Fuego; Cape Horn, Cape St. Roque.

4. *Islands.* Call attention to islands near South America: Galapagos, Falkland, Trinidad, Juan Fernandez. There is something of special interest about each. What is it?

Describe the fiords of southern Chile. Where in North America are there fiorded coasts?

5. *Natural regions.* Locate on outline map and model on sand map the following natural regions: Andes Mountains and plateaus, the highlands of Brazil and Guiana, the lowlands of the Orinoco, the Amazon, and the Parana.

NOTE. Describe, as you model, the high, rugged, snow-covered Andes, with passes as high as the highest peaks of Colorado. Then build in the low,

rounded peaks of the highlands of Brazil and of Guiana, calling attention to their importance as divides. Have the children make inferences as to the effect of the highlands on temperature. Picture the *llanos* as very flat and grass-covered in the rainy season; the *selvas*, as equally flat, but densely forested; the *pampas* as grassy plains. Ask the children to find in their reference books interesting statements regarding each natural region. Use these in describing imaginary journeys through the continent.

Compare the central plains of this continent with the Central Plains of North America; the Atlantic highlands with the Appalachian; the Andean highland with the Western highland of North America. Is the arrangement of highlands and lowlands favorable to the development of the continent? In which natural region do you think you would prefer to live?

With thin strips of paper, represent on a sand map the equator, Tropic of Capricorn, 30th parallel, 40th parallel, 50th parallel, and the 60th meridian. Judge latitude and longitude of relief features named. Compare with North America as to corresponding parallels.

Reading the physical map of South America. After the sand map has been completed and discussed, and a sketch map of the continent is ready for the notebooks, turn to the best physical maps in the textbook, and ask the children to tell all the map facts they can find. They are now ready to read such a map intelligently, because they can bring to the map reading the thoughts and experiences gained from the modeled map and its description.

Some map facts the children will find. The Andean highland is not so wide as the Western highland of North America. It is widest in Bolivia. That reminds me of the way the North American highland bulges to the east in Colorado. The Eastern highland of South America is in two parts, separated by the wide Amazon Valley. The corresponding highland in North America is cut in two by the narrow Mohawk Valley. South America has a central plain extending from north to south. There is no chain of Great Lakes in the central plains of South America, as there is in North America. The Amazon River reminds me of the St. Lawrence; the Parana reminds me of the Mississippi. I wonder if they lead into a central plain as important as ours in North America.

There is not so wide an Atlantic coastal plain in South America as in North America. The rivers on the west slope

of the Andean highland are short; I think they would not be navigable. Chile, like California, has a long central valley. I wonder if it is as busy a place as the Great Valley of California? The coast of southern Chile reminds me of Alaska. Railroading would be easy in the pampas and llanos. There are few good harbors along the Pacific coast. Most of the large cities are found along the border of the continent. I wonder why?

Climate. Simplify the following study, if you find the class is not ready for it.

References

ATWOOD: *New Geography*, page 272.
BOWMAN: *South America; A Geography Reader.*
BRIGHAM AND MCFARLANE: *Essentials of Geography*, Second Book, pages 222, 255–260.
FRYE: *New Geography*, pages 181–183.
GOODE: *School Atlas*, pages 52–55.
MCMURRY AND PARKINS: *Elementary Geography*, page 177.
—— *Advanced Geography*, page 232.
RIDGLEY: *General Circulation of the Atmosphere.*
SMITH: *Human Geography*, Book I, page 205; Book II, pages 360–361.

1. *Zones.* Much of the continent lies in the torrid zone. This may be defined as a belt in the equatorial region where the noon sun is straight above the heads of the people at some time throughout the year. It is bounded by the tropics. Make clear the fact that the sun is never straight above our heads in the temperate zone; therefore, we do not (on an average) receive so much heat from it directly as the people who live in the tropics. Illustrate by calling the child's attention to the position of the sun in the morning and at noon, and the consequent difference in heat received. Note the proportion of the continent in the torrid and temperate zones. In Argentina, to get to a warmer region, do you travel south or north? The seasons are reversed in the south temperate zone; the school children of Chile have their long vacation in January and February, because that is the hot summer season. How will this difference in

seasons help South America to find markets for her produce in northern continents?

2. *Winds.* The position of the sun with regard to a given place determines the amount of heat received directly; however, the circulation of the atmosphere helps to determine the *distribution* of that heat. Therefore, we must understand in what general direction the air is moving, in order to infer the climate of a given place.

Review the lessons on Air in the primary grades, noting: air, when warmed, rises from the earth; rising air soon cools; cooling air gives up some of its load of water; cool air settles to the earth; the earth warms the air which settles toward it; warming air takes up water; belts where air rises or settles are *calms.*

With these principles in mind, explain the scheme of *world winds.* Recall what is already known about the winds of North America.

(*a*) *Doldrum belt.* Warm, calm, rainy. Why?

(*b*) *Anti-trade winds.* (Upper air winds, moving poleward from the equator, with a bend to the east, because of rotation of earth.)

(*c*) *Horse-latitude belts.* Located about at the parallels of 30 degrees north and south. Calm, dry. Why? Why called *horse latitudes?* Trace these parallels on the globe, and discover that many deserts are located along or near them.

(*d*) *Trade winds.* Between horse latitudes and doldrums. Lower air winds. Steady and constant. Direction: equatorward, with a bend to the west. The trades are blowing from a cooler to a warmer belt. Then, are trades usually taking away water, or are they bringing rain? Suppose the trades come to a highland — which is the windward and which the leeward side? Which side will receive rain? Why? On map of South America draw arrows to show where the northeast and southeast trades blow. As you draw, discuss whether trades are climbing highlands or descending slopes. Locate the Desert of Atacama in northern Chile, on the leeward side of the Andes.

(*e*) *Prevailing westerlies.* From parallels of 30 degrees north and south, toward the poles. Bent or deflected eastward while moving poleward. Draw arrows, showing where the prevailing westerlies are found in South America. Which is the windward side of the Andes here? Then, which side will have little rainfall? Compare westerlies and trades as to regularity, and effect on temperature and rainfall.

NOTE. While the world winds must be taught as the prevailing system of atmospheric circulation over the globe, it should be very clearly stated that they are not prevalent over a large part of the Eastern Hemisphere. There the great continent of Eurasia causes a *continental circulation* which interferes with the world winds. Any further explanation of continental circulation should be deferred till the continent of Asia is studied in the junior high school.

Additional drill questions. Trace the doldrum belt in South America. What great river is within it? This is the largest river in the world. Can you see one reason why? Why is this belt usually forested?

The doldrum belt shifts northward in our summer. How would this affect the llanos? In our winter the doldrum belt shifts south again, and trade winds blow over the llanos. What effect will these have? Would you expect to find great forests here?

The Gulf of Guayaquil and its neighboring lands are said to be the most unhealthful places in South America. Why? How do the highlands of South America make the wind belts irregular?

Trace a journey by water from New York to the Straits of Magellan, noting wind belts traveled through and weather conditions to be expected. Would you prefer to go through the straits (a very dangerous passage) from the east or from the west? Why?

NOTE. Dramatize the world winds as follows: Draw east-west lines on the floor to represent the equator and the 30th parallels; and dots to represent the North and South poles. Place four children at the equator, two facing south and two north, back to back. Let them move toward the 30th parallels, angling a little to the east. These are anti-trade winds

of the upper air. Have two children continue poleward, one to the North Pole and one to the South Pole, still angling to the east. These are prevailing westerlies. The other two, who stopped at the 30th parallels, now turn about and move toward the equator, bending to the west. These are trades. Remind the children that the air rises at the equator, and settles at the 30th parallels, so making belts of calms. Let them tell what the effects will be as to rainfall. With three bold lines in a triangle, represent South America on the floor, in its proper location as to the equator and the 30th parallel. Now have children represent the trades and westerlies again, and discuss their effects. Locate the Andean highland, and discuss its windward and leeward sides, judging rainfall in different places.

Make a rainfall map of South America for your notebook. Print in the names of important plant products as you find them.

1. Turn to the population map of the continent. Comparing it with your sketch map of the surface features, and your rainfall map, determine why some areas are densely settled, while many others have a sparse population.

2. Judging by the location, the surface features, and the climate, what are the chief differences between South America and North America? What reasons can you find why South America has not developed a nation that is a world power?

What kind of people live in South America?

1. *Indians.* (Bowman: *South America; A Geography Reader.* See race map, *op. cit.*, page 317. Bryce: *South America.* Ross: *South of Panama.*) (*a*) The wild Indian tribes of the Amazon Valley and of Patagonia. What reasons can you find why the people of these areas are lowest in civilization of all the native tribes? How do they live? What do they look like? What is their work? their education? Do they have a voice in the government? (*b*) Civilized Indians, more than half of whom live in Peru and Bolivia. This was also the home of the ancient Incas, the most highly civilized Indians ever known. Can you find some reasons, judging by the character of the area, why it encouraged a complex civilization? Where, in North America, was the highest type of native Indian found?

What fraction of the entire South American population

is Indian? What countries have the highest per cent? Why the northern lands? The native Indians, when South America was discovered, were mainly agricultural; compare with the fierce nomadic tribes found in North America by early settlers. Could such Indians be forced to do the work of the settlers? In South America the Indians were practically enslaved. How did this affect the history of the two continents?

2. *Negroes.* Nearly all of these are in Brazil. Why? What is their work? (In rubber forests, on coffee plantations, etc.)

3. *Mixed races.* These make up about one third of the population. Is there any race or color prejudice in South America?

4. *Whites.* (About one fourth of the population.) Portuguese, in Brazil; Spanish; Italian; German; and other Europeans. Why are Argentina, Uruguay, Chile, and Brazil the white man's countries?

5. *Japanese and other Asiatics.* Why do they come to South America to live? What work can they do?

What languages are most common here? What religion? What per cent of illiteracy do you find? Are schools provided for all? What are some of the customs of the people? What characteristics of the people are favorable to the development of their continent? What hinder its development?

What South America furnishes to the world.

1. *Coffee.* (Allen: *Industrial Studies: South America.* Bowman: *South America; A Geography Reader*, pages 217–224. Carpenter: *New Geographical Reader: South America*, pages 293–301. Chamberlain: *The Continents and Their People: South America.*) Where are the coffee areas? On the map, find São Paulo, in Brazil — the center of the industry. Is it on a plain or in the highlands? From rainfall map, find the rainfall of the area. What does the temperature map tell you about São Paulo? Find other coffee areas (the highlands of Colombia, etc.). What part of the world's coffee is grown in Brazil?

In your reference books, find a good description of the coffee plant. In what kind of soil does it grow best? How is coffee planted? cultivated? Can coffee stand frost? How long a growing season does it need? Why are so many workers needed in the month of May? Describe a visit to a coffee plantation. Tell how the berries are picked, sorted, and dried. What kind of people do the work? Is much hand labor required? By what routes is coffee shipped to our country?

2. *Rubber.* What uses of rubber can you name? What part of your telephone equipment is made of rubber? What are some important rubber manufacturing cities in the United States? Why does our country lead in the manufacture of rubber?

Locate the raw rubber regions of South America. What conditions are necessary for rubber-yielding forests? Why is the doldrum belt favorable? Are rubber trees all of one species? Are the trees numerous in the jungle? What kind of people gather the liquid rubber (*latex*)? How do they tap the trees and collect the latex? How is this liquid hardened for shipping? How are the *biscuits* or *slabs* taken to the port (at Manaos or Para)? Describe the living conditions of the rubber gatherers.

Is wild rubber now the chief resource of the rubber manufacturers? Where are the world's rubber plantations? Why in southern Asia and adjacent islands rather than in Brazil? (More healthful climate; dependable labor; European management.)

3. *Chocolate* (*cacao*). In how many ways do you use chocolate or cocoa? The Amazon Valley produces more cacao than any other area. Describe the cacao tree. How does the fruit grow on the tree? Why is a windy area not favorable for these trees? After the fruit is picked, how is it prepared for shipping? Describe the beans as they are received at the factory. How are they prepared for your use?

4. *Nitrate for fertilizer.* What use of fertilizers do you know about? What materials for fertilizer are found in our

country? What are imported? The whole world depends on Chile for nitrates. Where are the nitrate beds? Why found only in deserts? Tell how the nitrate is obtained (blasting the rock, loading the broken pieces on mule carts, the haul to the railroad; the nitrate works — dissolving the nitrate, evaporating, drying, sacking, shipping). How do nitrate workers live in the desert? What are their houses made of? Where do they get their food? their water? What are the ports from which nitrate is shipped? What countries are the greatest buyers of nitrate?

Nitrate has other uses besides that of making fertilizer. What are they? Why was nitrate in demand during the World War? On the whole, why is nitrate the most valuable mineral in Chile?

5. *Meat and grain.* In our country do we produce enough meat and grain to supply the demand? Find out if we import from South America. European trade with South America is much heavier than ours. Can you see some reasons for this?

Recall the grain and live-stock regions in North America. What conditions favor these industries? After studying the maps of South America (physical, rainfall, railroad), decide where you would expect to find areas devoted to live stock. Will they be in the rainiest parts? the driest parts? among the jungle forests of the Amazon? in the rough lands of the Andes? in the hot, moist coastal lowlands? in the level valley of the Orinoco? In deciding on live-stock areas, why do you wish to know the latitude of each place? Why do you also look at the population map to help in your choice? Are you quite sure you can point out the best grass lands in the continent? Why do you look at the railroad map before you select live-stock areas?

Describe the cattle lands of Argentina. (Allen: *Industrial Studies: South America*, pages 171–179. Bowman: *South America; A Geography Reader*, page 36.) Compare these with the High Plains of North America. Describe a cattle ranch (*estancia*) and the work of a cowboy (*gaucho*).

How is the meat prepared for market? How is it shipped

to foreign countries? To what countries is it shipped? To what countries are hides and wool shipped? Where are the meat-packing centers in South America? Compare Rosario and Chicago in location, transportation facilities, nearness to grain and live-stock regions, etc.

Locate the corn and wheat belts in South America. Why does Argentina export much of her corn, while the United States keeps most of hers at home? Why does Argentina ship so much wheat? To what countries is it sent?

6. *Other products.* South America also furnishes sugar, cotton, copper, diamonds, lumber. Brazil has the world's greatest iron-ore field. Why is it not the center for steel manufacture? How has the coal shortage in South America affected industrial development?

The countries of South America. The following problems may suggest ways to investigate South American countries:

1. *The A. B. C. countries.* Why is Argentina the most progressive country? Brazil, with an area greater than the United States, has a population less than one fourth that of the United States. What are some reasons for this? Chile may be called the California of South America. (Allen: *Industrial Studies: South America*, page 229.) Find out in what respects this is true. (Great length, central valley, mountainous background, variety in climate and products, few good ports, etc.) Score the two areas on these, and other points.

2. *The northern countries.* What hindrances has Ecuador? What favorable conditions are found in Venezuela and Colombia? Why do European nations wish to own the Guianas?

3. *Central Andean countries.* Why may Peru be called a white man's country? Bolivia resembles Colorado and Utah in some points. What are they?

4. *Small countries of the plains.* How is Paraguay like Florida? Why is Uruguay attractive to white settlers? (Pleasant climate, fertile soil, almost no waste land, no mountain barriers, natural grass and grain regions, navigable

rivers, railroads, good harbor at Montevideo, population nearly all white, etc.)

5. *Some general problems.* Why is manufacturing comparatively unimportant in South America? What countries will probably develop manufacturing in the future? Why should the United States plan to increase her trade with South America? Can South America provide homes for overcrowded people of Europe and Asia?

Suggestions for children's activities.

1. *Talks and dramatizations.* (*a*) A visit to a coffee plantation, (*b*) what the ancient Incas were like, (*c*) the wild Indians of Tierra del Fuego, (*d*) a trip up the Amazon River, (*e*) in the rubber forests, (*f*) my visit to the nitrate deserts, (*g*) on a ranch in Argentina, (*h*) the beautiful harbor of Rio de Janeiro, (*i*) where I should rather live in South America, (*j*) my choice of a travel route through South America.

2. *Debates.* (*a*) That Brazil has more opportunities for advancement than Argentina, (*b*) that the character of the inhabitants has more to do with the slow development of South America than the physical conditions of the continent, (*c*) that South America offers the best opportunities for young people, of all the undeveloped lands in the world.

3. *An exhibit.* Collect samples of South American products, pictures of scenes and events in South American life, etc. Label and arrange these in order; have the children explain the exhibit to visitors, or to groups from other grades.

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UNIT 10. SEEING EUROPE AS A WHOLE

Time required: 1 or 2 weeks

Specific aims in the study of Europe. (*a*) To learn about the continent from which most of the settlers of America came, (*b*) to try to find out why the people of Europe developed the highest civilization in the world, (*c*) to compare Europe with America and thus be able to understand America better.

Finding the starting point.

1. Persons we know who have come from Europe.
2. Articles in our homes made in Europe.
3. Places in Europe from which our ancestors came.

Location. A near neighbor to Africa and Asia, really a great peninsula from the continent of Asia.

Problem. *What are the advantages in the position of Europe?* Suggested points: fronts the Atlantic — one of the great oceans of commerce; near other continents; none of it lies in the torrid zone; largely in the westerly wind belt, etc.

Extent. Compare with South America and North America.

Form. On paper, 9″ x 12″, draw the Arctic Circle, the parallels of 40, 50, and 60 degrees north latitude, the prime meridian, and the meridians of 10 degrees west and 60 degrees east longitude. With these as guide lines, sketch in the outlines of the continent. Drill in recognition of the following projections and indentations: peninsulas — Scandinavian, Iberian, Italian, Balkan, Danish, Crimean; indentations — North Sea, Baltic Sea, English Channel, Bay of Biscay, Tyrrhenian Sea, Adriatic Sea, Ægean Sea, Black Sea, White Sea, Caspian Sea. Surrounding islands: British, Iceland, Shetland, Balearic, Sardinia, Corsica, Sicily, Crete.

Problem. *We found the islands around the two Americas rather unimportant. Why are the islands around Europe so much more important?*

Draw the outline of the continent on the sand table;

cover with sand, while drilling on the names listed above. Now discuss the differences in coast lines as you model, calling attention to Norway's fiorded coast; to the low, shelving coasts of Denmark; to the steep wall-like coasts of northwestern France, with their few harbors; to the sand-dune coast along the Bay of Biscay, etc.

With the Italian peninsula (about 850 miles long) as a unit of measurement, have the children estimate the length of (*a*) Great Britain, (*b*) the Scandinavian peninsula, (*c*) the Caspian Sea, (*d*) the entire continent, etc.

Surface. On the sand map build up and describe the following: Scandinavian Mountains, Pyrenees, Cantabrian Mountains, Alps, Apennines, Carpathians, Transylvanian Alps, Dinaric Alps, Balkan Mountains, Urals, Caucasus; locate the great central plain, the Hungarian plain, and the plain of Lombardy (the Po Valley). Note that the central plain widens eastward till it reaches from the White to the Black Sea. The Hungarian plain is almost square and is surrounded by mountains. The Lombardy plain is a wedge-shaped lowland between the Alps and the Apennines.

Now try to see the surface of the continent as a whole and to describe its pattern. This will help the children to recognize the natural regions: the northwest highland, the central plain, the southern uplands and plains. Compare the European pattern of surface features with simpler arrangement found in the Americas.

After the slopes have been modeled, trace in the following rivers: Volga, Danube, Rhine, Rhone, Po, Vistula, Elbe, Thames, Garonne, Ebro, Tagus, Douro. Locate surface features in sketch map.

Trace the southern limit of glaciation, and discuss the effects of glaciation on the central plain.

Judge the latitude and longitude of the relief features named above. What places in North America are in the same latitudes?

Problems.

1. The highlands of the two Americas extend north and

south, while the great highland of Europe extends east and west. What are some effects of this arrangement of highlands in Europe?

2. Are the central plains of Europe as important to the continent as the Central Plains of North America?

Climate. Review world winds. Trace on sketch map of Europe arrows showing direction of the prevailing westerly winds.

The westerlies have been blowing over the ocean. Recall that ocean water is warmer than the land in winter and cooler than the land in summer. Then what effect will these winds have on western Europe?

The world winds help to cause surface streams on the ocean, called *ocean currents*, and these affect the temperature of the air above them. On an outline map of the world, trace the North Atlantic equatorial drift. Begin at the westernmost point of Africa, tracing the current westward, almost parallel with the equator, and noting that the northeast trades give direction to this drift or slow movement. The current is interrupted in its westward flow by the east coast of South America; it then swings northward, a part curving into the Caribbean and the Gulf of Mexico, emerging at the Florida Strait; part making a short circuit east of the West Indies and joining the longer circuit along the east Florida coast. The current has now crossed the 30th parallel. It is in what wind belt? Then what will be its direction? What is its name now? As the Gulf Stream moves eastward, toward Europe, it widens out like a fan and then slowly drifts back toward the African coast. Is the water of the Gulf Stream warmer or colder than the surrounding ocean water? Then what effect will it have on the westerlies which blow over it to Europe?

Examine an isotherm map of Europe. Why do the isotherms bend to the south after leaving the Atlantic coast? Do temperatures vary more from north to south, or from east to west, in Europe? Discover that distance from the ocean is more important than latitude in determining the temperature of places in Europe. Compare

with the isotherm map of North America. Are places on the 60th parallel in North America as warm as those in Europe on that parallel? How about the 40th and 50th? Account for the difference.

Make a rainfall map of Europe, using symbols as for North America. Compare rainfall of the British Isles and of the Caspian Sea area; of Scandinavian and Iberian peninsulas; of central France and central Russia; etc. Account for differences. What would be the effect on the distribution of rainfall in Europe if a great mountain chain, like the Rockies, extended along western Europe? Has Europe as much desert land as North America or South America? Would this help to account for the high civilization found here?

Countries.

1. *Leading countries.* Britain, France, Italy, Germany, Russia.

2. *Other countries.* Norway, Sweden, Finland, Denmark, the Netherlands, Belgium, Spain, Portugal, Switzerland, Jugo-Slavia, Czecho-Slovakia, Bulgaria, Austria, Hungary, Greece, Poland, Esthonia, Latvia, Lithuania, Albania, the Ukraine.

3. *Small independent countries.* Andorra, Monaco, Luxemburg, San Marino.

Which of these have natural boundaries? Which have long frontier lines without natural defense?

Problem. *North America is divided into a few large countries, while Europe is divided into many small ones. Give some reasons for this.*

Soviet Russia is the largest country of Europe, and the Ukraine is next in rank. France and Spain are about the same size, each being nearly three times as large as the state of Missouri. The United Kingdom, Rumania, Norway, Finland, Poland, Jugo-Slavia, and Italy might be placed in the same class — each not quite twice as large as Missouri. With the exception of Germany and Sweden, the other European countries are smaller than Missouri.

Reading the map of Europe. Be sure the children under-

stand the symbols used on the maps they are reading. Then expect them to get real thought.

Map facts children suggest. *Maps used:* physical, political, rainfall, population, temperature.

Europe has the most peninsulas of any continent. It is cut into by many seas. It has many little fenced-in places. I wonder if that is why there are so many countries. It has many islands around it. Its highlands are not continuous, like the Western highland of the Americas, but are cut into different parts. The highlands bulge northward in Germany, until they make the plain there quite narrow. I find two long routes through the highlands, where the Rhone and the Danube have cut through. That makes me think of the Hudson-Mohawk Valley through the Appalachians. Europe has more plains than highlands. It would be easy to build railroads on the plains, running from the Pyrenees Mountains clear to the Urals in Russia. Europe has many rivers. I think those on the plains would be navigable. The seas on the north and northwest are shallow; those on the south are deep. By the rainfall map, most of western Europe has plenty of rain. Eastern Europe, like western North America, has areas where the rain is scanty. The population map tells me that the densest areas are in the western half of the central plains. The area of fewest people is in the north. Europe's belt of dense population is farther north than the belt in our continent. I notice that the part of the central plains that is narrowest has a very dense population. When I look at the temperature and rainfall maps, I find that the western part of the central plains is favorably located.

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SMITH: *Human Geography*, Book I, pages 219–223, 275–279; Book II, pages 203–210.
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UNIT 11. THE BRITISH ISLES

Time required: About 4 weeks

Finding the starting point. Ask the children to find out if any of their ancestors lived in the British Isles. If possible, tell just where they lived, and point out the places on the map. Recall interesting items of history. Mention all the famous men and women you can think of who lived there: kings, queens, writers, soldiers, musicians, statesmen, etc. No doubt the list will include Alfred the Great, Queen Elizabeth, Mary Queen of Scots, Queen Victoria, Cromwell, Gladstone, Lloyd George, Nelson, Kitchener, Walter Raleigh, Shakespeare, Robert Burns, Walter Scott, Robert Bruce, and many others. Test the children's reading by mentioning British authors, as Dickens, Daniel DeFoe, Lewis Carroll, R. L. Stevenson, Kipling, etc. Many of our best-known songs, poems, stories are from the British Isles. Can you name some? Find out what articles used in our everyday life came to us from Britain (some of our linen and woolen goods, cutlery, etc.). Perhaps your dry-goods merchant can suggest other goods which he imports from Britain.

Reading the map. These islands are in shallow water and are not far from the continent. The coast line is very irregular; some of the largest indentations are in pairs, opposite each other, as the Firth of Forth and the Firth of Clyde; the Bristol Channel and the Wash. These make the island very narrow in places. Northern Scotland is all highland; then comes a belt of lowland, which has the two big cities, Edinburgh and Glasgow; south of that is another highland. I should expect to find the densest population in the lowland belt. England has much more plain than Scotland; I notice that the English plains contain more cities than the highlands. Wales is all highland. Ireland is lowland in the middle, and high around the edges. The Scotch coast looks like the coast of Maine: many narrow bays, and islands. I think it must be a fiorded coast. These

islands are in about the same latitude as Labrador. I wonder if the climate is as severe. I notice so many railroads on the English plain; it has many large cities, too. Judging by the scale of miles, Great Britain is about 700 miles long.

Some interest centers. I should like to find out all I can about London. I am interested in Oxford University because I know a Rhodes scholar. I should like to find out about the big cathedrals, Canterbury and others. I should like to know about Windsor Castle and other places where kings and queens live. How did it happen that these little islands became so important? Why do so many people live here? I should like to know about the places where famous persons have lived: Stratford and Shakespeare, Ayr and Robert Burns, Edinburgh and Sir Walter Scott, London and Charles Dickens, etc. Why do they have so many cotton mills, when they have to import all the cotton? How do they dig peat in Ireland? Why does Ireland raise so many potatoes?

An outline for one of the interest centers. *What are some of the conditions that have made Britain great?*

1. *The kind of people who live there.* Discuss the characteristics of English, Scotch, and Irish people — energy, ambition, determination, courage, pride, business ability, statesmanship, loyalty, love of liberty, ability to govern other peoples and races. Find other traits which seem to explain why this little group of islands, not so great in area as California, could become so influential. What events in history reveal some of these traits? Are the people well governed? What freedom has Ireland?

Find out about the schools in Britain. What per cent of the people cannot read and write? Are the people physically strong? Find the density of population per square mile; compare with that of the United States. Imagine some conditions of living in an overcrowded land like England. Over 80 per cent of the people live in cities; one fifth of the entire population is crowded into London and its environments. Think what a land of city dwellers suggests as to

ways of making a living; housing; rules of sanitation; means of travel; need for playgrounds for children; sources of food; unemployment; beggary; etc. Would the young people have as many opportunities to get on in the world as you have? What can the adventure-loving do?

Turn to the population map again, and find four areas of very dense population; two areas of sparse population. Some questions as to why these areas are so varied will at once occur to you. Answer them now, if you can; or wait until you have studied the climate, the surface, and the coal fields; then find reasons for the uneven distribution of population.

2. *The land they live in.*

(*a*) *Area and location.* Give the area, as compared with France, Germany, and with your home state. Discuss its location and advantages (seclusion without exclusion; protection from invasion by land; located to the west of the continent; in the path of the westerlies; faces the smaller of the two great oceans; in high latitudes; surrounded by narrow, tidal seas; a neighbor to progressive nations; etc.). Find two disadvantages in location. In what respect is France better located? Find the sailing distance from Liverpool to New York; to Buenos Aires; to Singapore; to Hongkong; to Melbourne. Find water and rail distance from London to Paris; to Berlin; to Constantinople; to Odessa.

Make a very simple sketch map of Great Britain and Ireland; add an irregular line to show the adjacent coast line of Europe.

(*b*) *Climate.* These islands are so far north that we might expect severe winters and very cool summers. Turn to the temperature map and look for the January and July isotherms which cross the islands. Draw these lines on your sketch map, and place at their marginal ends the temperature in degrees. Now turn to a temperature map of North America and locate similar lines. Then make a statement about the winters and the summers in Britain. Why are they so mild? Where, in North America, do you find a similar climate? Read about climate in your textbooks to

verify your statements. Describe a winter in England. How would you dress if you were to spend a summer in Scotland? If you lived in London, would you use as much ice in summer and as much coal in winter as you do in America?

Turn to the rainfall map and find areas where there is too much rain; sufficient rain. Explain how the westerlies are rain bringers. Why do they bring so much rain to Ireland and to northwestern Scotland? Can you account for the heavy fogs in Britain? What other fog areas do you think of? Judging by the temperature and rainfall, what crops could grow in these islands? Name some crops which grow in your home area which would not do well there, and tell why. Why do the Scotch eat so much oatmeal porridge? Why do the Irish eat so many potatoes? Where in England would you find apple orchards? Why are berries so delicious and so abundant in Britain?

Does the climate help you to understand why the British people are so energetic? If the climate is so favorable for crops, why are not more persons farmers?

(*c*) *Coal supply.* We have learned that a country needs coal, if it is to become great. Recall the immense coal fields of the United States. What is our yearly output of coal? Turn to a coal map of Britain (or Europe). Locate three coal fields, and name a large city near each. Are these coal fields near the coast? advantages? Locate the fields on your sketch map, by shading. In encyclopedias and other reference books, find out if British coal is high grade; if much of it is exported; what the yearly output is. Find a description of the work of a Welsh miner. Why is so much coal shipped out from Cardiff?

Since the islands have a dense population of city dwellers, and there are great coal fields conveniently located for water shipment, you will expect to find much manufacturing. Make a list of all the manufactures you find mentioned in your textbook: after each, place the name of a city where the article is manufactured. Look on the map to see if these cities are near coal fields; if they are on navigable rivers.

Now ask yourself some questions such as the following: How does coal help to make Britain great? If her coal supply should give out, could she continue to support so many people? What chance for water power is there? Ireland is coal poor. Is Ireland as prosperous and influential as Great Britain? Suppose Ireland had had the coal beds instead of Great Britain, how might their history have been different? Can a country become a world power without having a good coal supply? How about Italy and Japan? Is Russia well supplied with coal? Spain? Germany?

(*d*) *Raw materials.* We have seen that Britain has a dense population, a favorable location, an energizing climate, a good supply of coal, and extensive manufactures. Now we wonder where she gets the raw material for her industries. Look over your list of manufactures, and from it make a list of the raw materials used: cotton, wool, flax, copper, iron ore, clay, rubber, wood, etc. After each, write where it is produced. What neighboring countries add to Britain's home supply of iron ore? of flax? How much wool does the home country furnish? Where does she get the rest? Name three sources of cotton; of copper. Does Britain have a tariff on such imports?

Are you wondering why Britain ranks so high in manufacturing, when so large a part of her raw materials must be brought in from outside? Why does she bring wool from Australia, for instance? How much of her raw materials comes from her own colonies? Why are British cotton manufacturers so eager to encourage cotton growing in parts of Africa and Asia? To what countries does Britain sell her manufactures? Why do we not have more of her wares in our stores? Do the boats that carry manufactured goods to her colonies have a return cargo? What are some of these cargoes?

From the *Statesman's Year-Book*, encyclopedias, and other reference books, get a list of the five countries that are the biggest buyers of British goods; the five countries from which she imports most; the five leading imports and exports; account for each. What is Britain's rank as a manu-

facturing nation? Is there any danger that she might manufacture more than she can sell? Why is Britain so eager for peace on all seas? Why, then, does she keep so large a navy? Why does she build and own so many freight and passenger boats? Why has she gained so many colonies?

Write a page or two telling how Britain gets raw materials for manufacturing.

(*e*) *Food.* Can Britain furnish food enough for her crowded peoples?

Here are some figure facts to show how much food is produced in the islands:

YEARLY PRODUCTION OF FOOD IN GREAT BRITAIN

Wheat	53	million bushels
Barley	68	" "
Oats	100	" "
Potatoes	250	" "

YEARLY PRODUCTION OF LIVE STOCK IN GREAT BRITAIN IN 1921

Cattle	12	millions
Hogs	3	"
Sheep	24	"

Wheat-eating countries demand about five bushels for every inhabitant. Then, how much wheat will it be necessary for Britain to import for her population? Why is so much barley grown here? Account for the high yield of oats. Judging by the live-stock population, can Britain furnish enough meat, milk, butter, and cheese? Does she produce any sugar? Would she need to import eggs? fruits? vegetables? Does she raise enough food for her live stock?

Make a list of the foods that must be imported; after each write the countries from which it is imported. Do the British colonies furnish much food? Would you expect to find a heavy tariff on food imports? Is there any danger in having to depend on other lands for food?

You notice that one food, fish, is exported. Read every-

thing you can find about the fishing industry here; compare North Sea fishing with that on the Grand Banks. Give three reasons why the British seas are good fishing areas.

Now let us find some reasons why Britain does not grow more food. Discover from the maps (physical, rainfall, temperature) what parts of the islands are suited to farming. What hinders farming in northern Scotland? in Wales? Where are there other highland areas? What parts have too much rain? Find out about how many farmers there are in Britain. (Probably Scotland and England have the fewest in the world, in proportion to their population.) About three fourths of England and Ireland are cultivable. Why is so much of this good land devoted to pasture? Do most farmers own the land they cultivate? Are the farms large? well improved? Find a good description of a farm home in Britain. Why do so few people wish to farm in this country? Judging by the heavy import of farm produce, would you expect the farmers to get a good price for their crops?

Britain is famous for its breeds of domestic animals. Look closely at the place names on a good map of the British Isles, and see how many names of breeds of live stock you can find, as, for instance, Jersey, Guernsey, Shetland, Berkshire, Yorkshire, Galloway, Hereford. As a rule, do you expect crowded lands to produce much live stock? What reasons can you find to explain why there are so many sheep and cattle here? why so few hogs? Suggest, from a study of the physical map, some sheep areas.

Write a page telling about Britain's food supply.

(*f*) *Transportation.* Is Britain well supplied with railways and waterways?

A good way to judge the progress of a country is to find out about its roads and highways. Britain has over 23,000 miles of railway. How many has your home state? How many has France? Perhaps no other country in the world is so well supplied with railroads as Britain. Notice on the map where the network of railways is thickest. What cities are railroad centers? Describe a passenger coach used

in Britain. Why are the freight cars so small? What rivers and canals are used for freighting? Does Britain have good roads throughout the country? Would easy means of travel help to keep a people united and loyal?

Foreign commerce is necessary, or Britain would starve. Are there many good harbors? Name and locate eight seaports. Find reasons why London, Liverpool, Glasgow, and Cardiff are important. What British steamship lines can you name? The British build many ships. Why does Glasgow lead in shipbuilding?

As a summary, tell how British transportation facilities have helped to make her great.

(*g*) *Britain's dependencies.* Could the British Isles have gained such high rank without their foreign possessions? Name and locate the larger dependencies. Then find some of the small islands and headlands which are points of approach or defense for the larger possessions, as, for instance, Gibraltar, Aden, Straits Settlements, the Windward Islands, etc. What colonies are practically independent? Why has Britain become a great colonizing nation? How do the colonies strengthen her? How did they respond to her need in the World War?

Summary. After going over the topics mentioned in this outline, and many others which will occur to you, prepare a talk or a paper, telling why Britain has become so great.

Suggestions for children's activities.

1. *Talks or dramatizations.* (*a*) A day in London, (*b*) a visit to Westminster Abbey, (*c*) the Lakes of Killarney, (*d*) in the Scotch Highlands, (*e*) a Lancaster cotton mill, (*f*) a Yorkshire woolen mill, (*g*) a scene at the Glasgow shipyards, (*h*) a motor trip through England, (*i*) why Britain and America should be friends.

2. *Debates.* (*a*) That Britain has done more for the world than any other modern nation, (*b*) that Britain should do more to encourage farming, (*c*) that Britain's greatness depends more on the kind of people she has than on the kind of land they live in.

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UNIT 12. FRANCE

Time required: 3 or 4 weeks

Finding the starting point. The following topics may serve to introduce the study in informal discussion with the children, and thus to discover in the child's everyday experiences some interests which could be used to lead him toward the area to be studied:

1. Persons we know who have been in France, and what they tell us about the country.
2. Articles in our homes which came from France: jewelry, perfume, Haviland china, silks, gloves, salad oil, stuffed olives, etc.; souvenirs which the soldiers brought back; etc.
3. Any item of current or recent interest about France.
4. French persons we know in this country, what they are like, and what they do for a living.
5. Paris fashions.
6. Stories of Lafayette, Joan of Arc, Napoleon, etc.

Choosing some interest centers. The following are typical of a child's interest centers, as he states them himself:

1. I should like to know what kind of a country France is.
2. I never could see why the French held out so well in the war.
3. Why are the French so proud of their country?
4. Why don't more Frenchmen come to America?
5. Is France a good place in which to live?
6. Why do so many pretty things come from France?
7. I should like to know about Paris — what it is like?
8. How can a little country like France have forty million people living there?
9. Why have they done so much more than we to beautify their towns and cities?
10. Why are there so many farmers in France?
11. Why do they make so much silk in France?
12. I cannot understand why nearly everybody drinks wine in France, when in our country we do not believe in it.

13. Why do we get our fashions from France?
14. Why are France and Germany not very good neighbors?
15. Does France trade much with other countries?
16. Does France get as much help from her foreign possessions as Britain does?
17. Why is France a world power?
18. What are French persons like?

Such interest centers will be suggested by the children during the informal introductory discussion. They may be jotted down in notebooks as they are mentioned, and thus form a tentative outline for work. The children will probably select some as favorites, to be given most attention. They will also show some individual preferences, affording the teacher an opportunity to appoint chairmen of committees to be responsible for reports on certain problems or interest centers.

Reading the map. Whatever our interest centers may be, everybody will turn to the map first, as the facts which it gives are necessary for the solution of any problem.

The map of France tells so many simple and significant truths that it lends itself well to a map-reading exercise. With some care in questioning on the part of the teacher, the children may discover for themselves most of the following items, or similar ones. Every child should be able to read the map fairly well before he takes up the other reading matter in the books. (Atwood: *New Geography*, pages 161, 182, 216–217. Frye: *New Geography*, pages 193–194, 207. Smith: *Human Geography*, Book I, pages 248–250; Book II, page 204. McMurry and Parkins: *Elementary Geography*, page 204; *Advanced Geography*, page 281.)

What the maps tell us about the kind of place France is:

1. It has a great deal of seacoast.
2. There are two peninsulas which point off to the northwest.
3. It has mountains for part of its border.
4. It is very close to England in one place.
5. It has a big highland in about the middle of the country.

6. It has four big rivers which flow off from the central highland. I want to find out whether they use these rivers much for boats.

7. It has a straighter coast than Britain. I wonder if it has as many seaports.

8. So much of the country is a plain that we can expect it to have much good farm land.

9. It probably will be warmer here than in England, because it is so much farther south. They will be able to grow some crops here which cannot be raised in England. Perhaps they can market some of these crops there.

10. There will probably be heavier rainfall on the peninsulas, because the westerly winds will come to them from the sea.

11. Between the central plateau and the upland of Brittany is a narrow strip of lowland. This connects the Paris Basin and the plain west of the central plateau. It reminds me of the Mohawk Valley in New York, connecting the Central Plains of the United States with the Hudson Valley.

12. Paris is in about the center of the big plain called the Paris Basin.

13. I am surprised to find how far north France is. About all of it is north of Nebraska.

14. The lines of ocean traffic seem to center at three ports.

15. France would be an easy country to travel through because there are no high mountains on the inside. Perhaps this would help the people to understand each other better, because they could get together often. (The teacher should explain here how the arrangement of physical features in France tends toward centralization and unity. Perhaps no other nation has a physical setting more ideal in this respect.)

16. There are many railroads which go through Paris.

17. They have so many kinds of farm crops here: the tobacco makes me think of Kentucky; the olives, of California; the sugar beets, of Colorado; the wheat, of Minne-

sota; etc. There must be a good many kinds of climates here, if all these things can be raised.

18. Most of the boundary is either seacoast or mountains, but that next to Belgium is just lowland.

19. France is well located for trade with Africa.

20. It looks as if France had taken about one third of the whole continent of Africa. (Political map of Africa.)

Each chairman should note the map facts which he thinks belong to his interest center, and use them later in reports.

A *Library Committee* has been at work, collecting books and magazines which contain material on France. The books are listed on the blackboard, with pages given where wanted facts may be found. These books include any geography textbooks, supplementary books, etc.

Gathering data and grouping results around selected interest centers. Two interest centers which seem to be adapted to children of these grades, and which call for an investigation of the more essential characteristics of French life, are: *Why are there so many farmers in France? Why do so many pretty things come from France?* These have, therefore, been chosen for outlining in this study. The teacher should feel entirely free to use any other problems which appeal more to her children. One or two problems of this kind, however, should be worked out by the entire class in committee of the whole. The other interest centers may then be assigned to smaller groups.

Why are there so many farmers in France?

What map facts will help to answer this problem? Estimate the per cent of land suitable for farming. (Nearly three fourths of France is under cultivation.) Facts to be gained from the textbook, the encyclopedias, the *Statesman's Year-Book* (1921), *The Literary Digest*, February 11, 1922, and other references. What per cent of the population works on the farm? (40 per cent.) Do the farmers usually own their farms? How large are the farms? What does this suggest as to skill in farming? Does the farmer always live on the farm? What kind of a house does he live in? Is the farm well equipped as to buildings, implements, etc.? What

are the leading crops? the yield per acre of wheat, oats, potatoes, rye? Compare with yield in our country. What does this difference suggest? The American farmer who feeds stock and so markets his crops indirectly, is the most prosperous. Does the French type of farming support much live stock? (McMurry and Parkins: *Advanced Geography*, page 297.)

Make graphs showing proportionate area, population, and amount of live stock of France and of Nebraska, or any other agricultural state.

The following are statistics in round numbers for 1921:

TABLE OF COMPARATIVE STATISTICS

	France	*Nebraska*
Area	212,000 sq. mi.	77,000 sq. mi.
Population	39 millions	$1\frac{1}{3}$ millions
Cattle	13 "	3 "
Sheep	9 "	$\frac{1}{4}$ million
Hogs	5 "	3 millions

Statistics from "Statesman's Year-Book," 1923.

What conclusion do you draw from this comparison?

1. *The wheat lands.* (See maps. Atwood: *New Geography*, page 182; Appendix, page iv. Smith: *Human Geography*, Book II, page 206. Frye: *New Geography*, page 196.) Where are they? Nature of surface and soil. Compare with our own wheat belt. See rainfall map, to find the rainfall of the wheat lands. (Note that rains are quite frequent in this part of France.)

See isotherm map, and note the July isotherm of 70 degrees and the January isotherm of 50 degrees. Are you surprised to find such mild winters as far north as France? The January temperature at Brest is 44 degrees. What is it at your home town? Trace these temperature lines from France westward across the United States. Where is the 70 degrees line with regard to our own wheat belt? Compare the two wheat belts in several respects. (See rainfall map of North

America.) Sketch the outline of France, trace the isotherm of 70 degrees, then dot the wheat areas. Do the French export wheat? Why do they place a duty on flour? Do the French prefer wheat bread to bread made from rye or cornmeal? Do French menus usually require wheat? (See Figure 365, Atwood: *New Geography*.) What machinery is used in the French wheat fields? What methods of wheat growing differ from ours? (See encyclopedia.) Summarize all the reasons why much wheat is grown in France, and why their production per acre is greater than ours.

2. *The sugar-beet lands.* What part of France is suited to sugar beets? Where are these areas? Nature of surface, soil, rainfall, summer temperatures? Sketch outline of France and indicate beet fields. In normal times, France produces 35 pounds of sugar per person. Is that enough? Is much hand labor required for sugar beets?

3. *The fruit and grape lands.* What part of France is suited to oranges and lemons? Why? (For discussion of the Mediterranean climate, see Salisbury, Barrows, and Tower: *Elements of Geography*, pages 185–188. Smith: *Human Geography*, Book I, pages 96–100.) Compare southern France with southern California in regard to mild winter temperatures, sunny summers, winter rainfall, long frostless seasons, etc. Where are the principal vineyard districts? Explain their location. Are wine grapes like our table grapes? Is there much hand labor required in vineyards? (McMurry and Parkins: *Advanced Geography*, pages 285, 314.)

Where are the apple-growing areas? What conditions are favorable to the growth of apples?

4. Market gardening and dairying. Where carried on? Why profitable there?

5. Marketing the farm produce. Is the surface of France favorable to the marketing of farm crops? Are rivers, canals, and railroads so located as to be convenient for farmers everywhere in France? (France has 32,000 miles of railway. What is the railway mileage of your home state?) Are there many markets or few? What agricultural

products are marketed abroad? France is almost self-supporting as regards food. Summarize all the reasons you can find for this.

Why do so many pretty things come from France?

1. List of articles showing taste and skill in manufacture which are made in France.

2. What kind of people are the French? Dorothy Canfield Fisher says (*Woman's Home Companion*, February, 1922), "The roughest, most illiterate old French carpenter in the most remote country village will not put up a shelf badly, not even to please the most hurried and impatient of American employers. . . . Practically every working person in France, whatever his trade, has the artist quality of pride and interest in his work. . . . The French have a personal, never-failing interest in having things done right. Why can't we try to catch from the French something of their splendid reverence for good workmanship, something of their critical spirit?"

Find other statements regarding the taste and skill of the French people.

3. Shortage of coal prevents extensive manufacture of heavy iron and steel goods, etc. Locate the coal fields of France in a simple sketch map. Compare the coal output of France, Britain, Germany, the United States. What is the share per person in each country? Compare these countries in respect to their four leading manufactures. What opportunities for water power are found in France?

4. Availability of certain raw materials: clay, silk, wool, hides and skins, flax, flowers (for perfume), cotton (from the United States), etc. Show how the Mediterranean climate favors the production of (*a*) silk, (*b*) goats, (*c*) flowers, etc. What raw materials come from the dependencies of France? Why?

5. Find reasons for the location of cotton and woolen mills in northern France; silk, near Lyons; perfume, near Marseilles; china, near Limoges, etc. Locate the leading manufacturing cities on the coal map.

6. The four leading *exports* of France are silk cloth, cotton

cloth, clothing, chemical products. Explain in each case why this is true. Who are the big buyers of French goods? Why?

7. The six leading *imports* of France are cereals, coal, cast iron and steel, raw cotton, wood, and machinery. Explain.

8. Summarize all the reasons you can find for the French type of manufacture.

Some significant facts for drill.

1. Area, over 200,000 square miles. (Use round numbers only in handling statistics.)
2. Population, over 39 millions.
3. Three other countries, or states, of about the same size.
4. Three countries of about the same rank in population.
5. Exact location of six or seven cities, selected by class.
6. Location of the four most important rivers.
7. Location of the following surface features: central plateau, upland of Brittany, Paris Basin, the Alps, Pyrenees Mountains, Vosges Mountains, Jura Mountains.
8. Wheat yield (round numbers) in millions of bushels.
9. Sugar output in millions of pounds.
10. Coal output in millions of tons.
11. The three bodies of water bordering France.
12. Approximate distance from New York City.
13. Four of the most important colonial possessions.
14. Approximate latitude of Paris.

Some suggestions for children's activities.

1. Model the country in sand. Locate the central highlands, the mountain borders, the four great rivers, eight or ten cities.

2. Have different groups of children dramatize selected events in French life. They should choose the event they wish to present and plan the simple costumes and the action needed. The following is a list which may be helpful:

(*a*) A scene in a French vineyard.
(*b*) A scene in an olive grove.
(*c*) In the sugar-beet fields.
(*d*) In the wheat fields.

(*e*) On a dairy farm.
(*f*) In the silk-producing area.
(*g*) In the home of a French peasant.
(*h*) A scene in one of the establishments where fashions are designed, when American buyers come to see the new models.
(*i*) In an art school.

3. Children give talks on selected subjects:

(*a*) What I saw in Paris.
(*b*) What a great cathedral (as Notre Dame) is like.
(*c*) The French Fourteenth of July.
(*d*) My visit to the Louvre.
(*e*) My vacation trip in Madagascar.
(*f*) My vacation trip in Algiers.
(*g*) Madame Curie, and radium.
(*h*) What a Parisian tells of his recent visit to the United States.
(*i*) What I saw on an airplane trip from Havre to Marseilles.

4. A French exhibit. A committee collects articles, pictures, clippings from magazines, etc., and arranges them for display, each exhibitor being held responsible for some explanation of the article he has furnished.

5. Booklets, with cover page in some characteristic French design (as the fleur-de-lis). Pages devoted to sketch maps, to neatly made graphs, to write-ups of certain subjects, etc.

6. Recital of selected French songs, poems, stories.

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—— *Advanced Geography*, pages 306–318.
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UNIT 13. THE NORTHERN PLAINS — GERMANY

Time required: 2 weeks

Finding the starting point. Who has ancestors who lived in Germany? Songs, poems, stories of Germany that we like. What Germany has furnished to us: toys, jewelry, linen, chemicals, dyes, glass and porcelain, optical goods, electrical goods, leather goods, cloth, machinery, fertilizer, etc. Famous Germans we have heard about: Froebel (*Kindergarten*), Luther, Beethoven, Wagner, Roentgen (*X-ray*), Krupp, Koch, Humboldt, Schiller, Goethe, etc. Travelers' accounts of a visit to the Passion Play, a trip up the Rhine, life in the Black Forest, the Krupp works, Dresden art galleries, beautiful streets in Berlin, German opera, experiences in a German university, etc.

Reading the map. Germany stretches across the plain from west to east. It is in two parts. East Prussia is not connected with the larger part. A little more than half of Germany is in the central highlands of Europe, and it is made up of plateaus and mountains. I cannot see that its boundaries on the plain are natural. Its irregular southern boundary is largely made up of mountains. The Rhine forms part of the eastern boundary. I think this country would be hard to defend on the east and west. It has a very short coast line on the North Sea, and two large rivers, the Weser and the Elbe, flow into it; they locate the two ports, Hamburg and Bremen. The Baltic seacoast is very irregular; since the map tells me that the Baltic waters are shallow, and the German lands touching it are low, I do not expect to find very good harbors here. The Oder River flows into the Baltic, and I find the port of Stettin near its mouth. Berlin is almost at the center of the German plain. The railroads branch out from Berlin like the spokes of a wheel. I think the rivers on the plain would be navigable. The Rhine River interests me; it starts in Switzerland, and ends in the Netherlands. A part of the upper Rhine has a wider valley

than the middle Rhine; there are many cities on the lower Rhine. I believe Germany is quite well located for trade with the rest of Europe. Its North Sea ports are convenient for Atlantic trade. The Kiel Canal gives a waterway from the Baltic to the North Sea. Since there is a wide range of latitude here, and a variety of surface, I shall expect to find that many kinds of crops can be grown. The population map shows me that there is a very dense population in the western part of the German plain and along the Rhine Valley. The rainfall map shows that nearly all of Germany gets sufficient rain, and that it is largely a summer rain. From the coal map of Europe, I see that Germany has many coal fields, some of which are near the Rhine; perhaps they use the river to transport this coal. The glaciation map shows that about all the German plain was covered with glacial ice, so we know there will be glacial soils here. There are many cities on the German plain. There are more states in the uplands than on the plain.

Discovering some interest centers. I should like to read about the toymakers in Germany. The busy port of Hamburg interests me; they say you can get a boat there for almost any place in the world. I will find out about the Hamburg-American Line. Does Germany manufacture as much as England? Did Germany lose much in the war? Why have so many Germans come to our country? Does Germany raise much food? Is Germany, like Britain, overcrowded? How do people make a living here? What does it mean to a country to occupy the middle of the great European plain? Why was Germany a world power? I should like to make a comparison between Germany and France, and score the two countries on *points*.

Working out some of the problems. *How do the people make a living?* Let us start with the statement that half the people depend on manufacturing and mining. Another figure fact that helps us to understand German life is that over half the people live in cities. What are some reasons for this?

What is the area? population? density of population per

square mile? Do you think wages would then be high? Are the people energetic? Consult temperature maps to find the kind of summers and winters they have here. Compare with Spain. Davis, in his book, *The Roots of the War*, says, " No other country has so many people who live under a highly energizing climate and are also under a single government." What are some of the characteristics of German workmen? Do they have a chance for technical training in their schools? In what lines are they superior?

If manufacturing is highly developed, we may expect to find an abundance of coal or water power. Notice from the coal map the location of the coal fields. Why favorable? From encyclopedias and other books, find out the kind of coal produced here; the yearly output (over 300 million tons in 1914); the uses of coke in Germany; how coke is made; how Germans make profit from the by-products of coke making; etc. Make a simple sketch map of Germany. Locate four coal fields and four rivers.

We have found that Germany has an abundance of labor, skilled and energetic, and that she has coal, well located for transportation, which she uses economically. What raw materials has she for manufacture? Since her leading export is iron and steel goods, we shall discuss that first. Where are her iron-ore areas? How serious was the loss of the Lorraine fields? Compared with our Lake Superior iron ore, the German ore is low grade. How do they overcome this handicap? Does Germany import any iron ore? List all the iron and steel manufactures you can find mentioned for Germany. Why is Germany able to make the steel wares requiring much material, as, for instance, structural steel, rails, steel plates for ships, machinery, etc.? Why is there also so varied an output of smaller articles calling for less material but much labor? What are the leading cities that manufacture steel goods? Locate four of these on your sketch map.

We find that cloth making ranks next to the manufacture of iron and steel goods. What raw materials are found here? In 1914, Germany produced 10 million tons of flax. Where

are the flax areas? What climatic conditions are necessary? Where else in the world is flax grown extensively? Find out why Russia leads the world in flax growing. Does Germany import from Russia? Is linen cloth as much in demand as cotton? Germany must import all her cotton; why, then, does she manufacture so much? Where does she get her cotton? To whom does she sell the cloth? Is much wool produced here? (In 1914, Germany imported more than ten times as much wool as she produced at home.) Compare the number of sheep in Germany (2 millions) with the number in Britain. What reasons can you find for this small number of sheep? Name four textile-making cities, and locate them on your sketch map. Tell why they are well located.

Why is leather manufacture profitable here? What countries furnish hides and skins? Copper is much in demand; who furnishes most of it? What articles are made here? How does Germany rank in the manufacture of electrical goods?

The manufacture of sugar is important. Where are the sugar-beet areas? What conditions of soil, rainfall, and temperature are favorable? Germany grows about one half the world's sugar beets. Where, in our country, are sugar beets grown? Does Germany export sugar?

Name other manufactures of Germany, and try to find out why they are profitable here. List the minerals found in this country, and show how they furnish a foundation for certain manufactures.

To what countries does Germany sell her goods? In normal times Germany manufactures so extensively that only 30 per cent of her products is needed at home; she must find markets outside for the remaining 70 per cent. From your books of reference, list the five countries that are the largest buyers of German goods. In each case try to think why so much is imported from Germany. Find out how German goods are transported. Why are there so many German ships on all seas? Find out what you can about the Hamburg-American Steamship Company; the

North German Lloyd. What special advantages has Hamburg as a port? How does Germany use her waterways? (She has nearly 8000 miles of waterways. How does this compare with France?) Germany has over 35,000 miles of railway. Compare with the railway mileage in your own state. China has only 7000 miles. Is China a great commercial country? On the whole, how does Germany compare with other great industrial nations in her transportation facilities? On your sketch map draw in red some of the main railroad lines which center in Berlin; which connect with the Rhine Valley; which extend into Czecho-Slovakia, into Poland, into the Ukraine.

Some of the people make a living by farming. Why is the number of farmers so small? How does it compare with that of France? of Britain? We should expect the plains to be good farming land. Find statements in your textbooks as to the soils. The glacial soils of Iowa and Illinois are deep and fertile. Why are glacial soils not so good in Germany? Where on the plains are the best soil areas? Farms in the western part are small; on the eastern plain there are many very large estates. The average German farm, however, is only thirteen acres. Can you find some reasons for this? Do most farmers own their land? How does all the family help with farm work in Germany? Rye is the leading grain. Why? Germany grows about one fourth of the world's rye. How does she use it? Does she export any? Why does she not grow wheat on her rye areas? Potatoes are a very important crop; Germany grows almost half the world's supply. What soil, rainfall, and temperature conditions favor this? Do potatoes call for much hand labor? What other use besides human food is made of these potatoes? We found Germany a great sugar producer. Does this call for many laborers? In wheat, Germany does not rank so high. She has to import about one third of what she uses. From what neighboring countries can she get it? She imports almost as much barley as she raises. What is it used for?

Would you expect a crowded land like Germany to have

much live stock? Hogs lead in the list. Why would Germany have so many, when Britain has so few? Cattle are next in rank, but there is a very high per cent of dairy cattle. Under what conditions is dairying profitable? Germany imports much fish, meat, and eggs. From what countries?

Germany makes good use of her land. She plows about half of it: over 90 per cent of the whole area produces something. Does she have materials for fertilizers? Where are the great potash areas? What South American country sends nitrates for fertilizer? Perhaps you will read somewhere how nitrogen-fixing plants extract nitrate from the air.

Many persons in Germany make a living by caring for the forests. Find out some ways in which Germany surpasses the United States in forestry.

As a summary, tell in your own words some ways of making a living in Germany. Do young people have as many opportunities here as in America? If you lived in Germany, what business would you like to be in?

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UNIT 14. THE MEDITERRANEAN LANDS—ITALY

Time required: 2 weeks

Finding the starting point. Italians we know in this country. What is their work? Famous Italians we admire: Garibaldi, Caruso, Marconi. Accounts of travel in Italy by persons we know. Articles in our homes that came from Italy: jewelry, corals, Venetian glass, prints and casts, macaroni, lemons from Sicily, olives and olive oil, straw hats (Leghorn or Milan), pictures of beautiful scenes in Italy, etc. Vesuvius and its eruptions. Stories of ancient Rome. Roman heroes: Julius Cæsar, Horatius, etc. Italian explorers: Columbus, Americus Vespucius, Marco Polo, and others. Interesting places we have heard about in Italy: the Bay of Naples, Capri, Mt. Vesuvius, Mt. Etna, the Italian Lakes, Florence, the Arno, the hill towns, Genoa (the birthplace of Columbus); Rome, with St. Peter's and the Vatican, the catacombs, the ruins of the Forum, and the Colosseum, the Roman Aqueducts, the Appian Way, the Campagna; Venice, with its palaces, St. Mark's, the Rialto, the Lido, canals, gondolas, Bridge of Sighs, Horses of St. Mark's, etc. What would you most like to see in Italy? Have you read about the St. Gotthard and Simplon tunnels? How do they compare with the Hoosac Tunnel in Massachusetts?

Reading the map. Italy looks like a boot. Its top outline is very irregular. Does it follow the crests of the mountains? It looks as if all its boundaries were natural. I wonder if the Alps make as good a fence as the Pyrenees. The coast line is quite straight; there are more cities on the west coast than on the east. The part of Italy that lies on the east of the Adriatic is very rough, and the coast line is much broken. Italy is largely mountainous. There is a wedge-shaped plain (*Lombardy plain*) in the north, and a narrow coastal plain in some places along the edges. The Apennines run all along the leg of the boot and down into the toe; I notice that they curve to the east. This makes the western slope the longest, and the Tiber and the Arno have a longer course than the eastern rivers. Is that one

reason why Florence and Rome are on the west side of Italy? I should expect the Lombardy plain to get much sediment from the highlands that surround it. It has the largest river of Italy, the Po. There are more cities in this plain than in any other part of Italy. In the population map of Europe I can locate the Lombardy plain because of its dense population. I suppose it has good farming land; railroading would be easy there. From the rainfall map of Europe I can see that the Lombardy plain has more rain than the southern part of Italy. I begin to wonder if this Lombardy plain is not something like the lowland belt of Scotland, or the Paris Basin, or the central valley of Chile. I am interested in the two islands, Sardinia and Sicily; the population map shows Sicily is densely peopled and Sardinia is not: I wonder why. Italy is well situated for trade with Africa: I wonder if she has any colonies in Africa; the map shows three, and one of them, Libya, is just across the Mediterranean from Italy. I think Italy is not very well situated for Atlantic trade. I wonder if the Alps make railroading difficult into France, or into Germany. Are there many passes through the Alps? I see that Rome is in about the same latitude as Chicago: why is the climate so different? I notice that the other Mediterranean peninsulas have more than one country on them: I wonder why Italy got a peninsula all to herself.

Discovering some interest centers. I should like to know why persons live on the sides of Vesuvius, when they know it is so dangerous. Why do so many Italians come to our country and to South America? Rome used to be the world's leading city; why isn't she now? I should like to find out all I can about Rome. I should like to find out why Venice has canals for streets. Why is Italy an art center? Italy is a world power. Why? I should like to compare Italy and Spain, because they are both Mediterranean countries and are on peninsulas. Why is the one so much more important than the other? I should like to know how so small a country as Italy can take care of so many people. Is the country overcrowded?

Working out one of the problems. *Compare Italy and Spain, to find out why Italy is the more important.*

1. Note every point you can think of as to the location of the two countries. Which has the best position for overland trade with Europe? for Mediterranean trade? for Atlantic trade? Compare the countries in area, population, density of population. Find reasons why Spain is so thinly populated. Compare the proportion of lowland in each country; the Ebro and Guadalquivir valleys in Spain with the Lombardy plain of Italy; the coastal plains of the two countries. Compare the central highlands of Spain with the Apennines. What are some serious difficulties in regard to communication in Spain? Compare the Pyrenees and Cantabrians with the Alps. Which has more roads and railroads? Compare the coast lines and the seaports; select four seaports of each country and pair them off; which have the advantage? Then compare the inland cities of the two countries.

2. Compare the areas as to rainfall, summer and winter temperatures. Which has the largest arid region? From *Statesman's Year-Book* and encyclopedias, find figure facts as to yield of wheat, rye, barley, corn, rice, grapes, fruit, olives, etc. Which has more land under irrigation? What farming methods are used? What live stock is kept in each country? Why are there so many goats and donkeys, so many cattle and sheep, in Spain?

3. What is the coal output in each country? Which imports the more coal? Why? What other minerals are found? Why does not Spain profit more from her iron and copper ore? What is manufactured in the two countries? Why is Italy, with little coal and limited raw materials, so far ahead of Spain in manufactures? Which country has developed more water power? How does Italy use the steam vents of her volcanic area to develop power?

4. Which has more miles of railroad? better roads? Which people are more united? Why is Spain like a group of separate states instead of a strongly united people? In each country what is the attitude of the people toward work?

Can you explain this? Compare the two peoples in per cent of illiteracy. Compare the customs of the people as to games and sports, dress and food, homes and family life. In which country does the government do more for the people?

5. Compare the countries as to number and value of their foreign possessions. Why did Spain lose so many valuable colonies? Compare the countries as to their foreign trade. Which exports the more? Which country is more attractive to tourists?

6. In general, what are the disadvantages in this winter-rainfall type of climate? What are the advantages? Can you see why Mediterranean lands developed a high civilization very early? Explain why California, with its Mediterranean climate, is prosperous, while Italy and Spain are lands of poverty. Italy encourages some of her people to emigrate to lands of better opportunity. In what two ways will that benefit her? Do many Spaniards emigrate? In which of the two countries would you rather live? Why? Summarize the points in which Italy is superior to Spain.

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WHITBECK AND FINCH: *Economic Geography*, pages 420–433.
WHITCOMB: *A Little Journey to Italy.*

UNIT 15. THE BALKAN LANDS — JUGO-SLAVIA

Time required: 1 week

Finding the starting point.

1. What we know about Slavs in general.
2. Serbia's experiences in the World War.
3. The American Red Cross in Serbian Relief.

Reading the map. With some care in questioning on the part of the teacher, the children may discover for themselves most of the following map facts or others equally significant:

1. Jugo-Slavia has a very irregular boundary line.
2. Part of the boundary is along the Drave and the Danube rivers.
3. Almost all the rivers of the country flow toward the Danube. Only a few very short streams empty into the Adriatic.
4. There is no coastal lowland.
5. Belgrade is located at the junction of the Save and the Danube rivers, and not far from the mouth of the Morava. That makes me think of St. Louis, near the junction of the Missouri and Mississippi rivers, and not far from the mouth of the Ohio. I wonder if Belgrade is as large as St. Louis.
6. Belgrade is almost on the dividing line between the highlands and the lowlands. That makes me think of Denver.
7. There are not many railroads in the mountainous part of Jugo-Slavia.
8. One line of railway goes past Belgrade, up the valley of the Morava River, then down the valley of the Vardar River, to the Greek port of Saloniki. (One of the most significant facts in Jugo-Slavic geography.)
9. Jugo-Slavia does not own all the Adriatic coast line on the eastern front of her area. Some of it belongs to Italy. It makes me think of the long Alaskan coast belonging to the United States, which is on the western front of Canada's territory.
10. There are many islands along the coast of Jugo-Slavia.

This is like the Norwegian coast. I wonder if the Jugo-Slavs are as skillful seamen as the Norwegians.

11. There is such a great variety of products in this area that it makes me think of France. I should not expect to find wheat and corn and tobacco and olives grown in areas so close together. There must be several kinds of climates here. (Continental and Mediterranean climates should be discussed and explained.)

12. Jugo-Slavia has many neighbors — Italy, Austria, Hungary, Rumania, Bulgaria, Greece, Albania. I wonder if she gets along well with them all.

Choosing an interest center. A statement in the child's own words of something he would like to do or to know about a given area may become an interest center. The following are typical:

1. I should like to know why Serbia had such a hard time during the World War.

2. Jugo-Slavia and Italy are about the same size. I should like to compare the two countries to see if Jugo-Slavia could ever be a world power, like Italy.

3. I should like to compare Jugo-Slavia and Czecho-Slovakia because they are both Slavic countries, and because they are both new as independent nations.

Gathering data and grouping results around the interest center. We might select for our interest center the following: *What chance has Jugo-Slavia to become a world power?*

1. What kind of people are the Jugo-Slavs? Are they capable of working together for the good of their common country? Do they all speak the same language? Do they have the same religion? Do they have good schools? Are most of the people able to read and write? Do many of the peasants own their farms? (See *Statesman's Year-Book*, 1921, page 1268.) Why is this a good thing for the country? Compare with France. Are the people brave soldiers? Are they loyal to their king? Do they have a good king? Are there people enough in Jugo-Slavia to make it a world power? Compare with Italy.

2. Is their country well located for trade with other countries? Trace their routes of travel (*a*) from Belgrade to Constantinople, (*b*) from Belgrade to Saloniki, (*c*) from Belgrade to the Black Sea, (*d*) from Belgrade to Hamburg, (*e*) from Belgrade to Fiume and Trieste.

Explain what trade these routes would give them; what products would probably be sent over these lines.

3. Is this country large enough and productive enough to make of the Jugo-Slavs a great nation? Compare in area with Italy and Czecho-Slovakia.

Imagine a great wall around Jugo-Slavia, so that no products could be sent out of or brought into the country. Then let us see if the people could manage to live comfortably on their own products. Do they raise enough breadstuffs? What cereals are grown here? Have they meat animals enough to furnish meat for all? What would they do for sugar? What fruits would they have? How about materials for clothing — wool, flax, cotton, silk? Judging by the live stock they raise, would there be hides and skins enough for shoes and other articles made of leather? Why are so many goats raised here?

Notice the rainfall and the isotherm maps, and draw conclusions regarding the climate here. Recall the conditions favorable for (*a*) corn, (*b*) wheat, (*c*) tobacco, (*d*) olives, (*e*) grapes. Where in the United States are each of these grown in abundance? A corn belt requires summer rain. Olives grow best where the rain comes in winter. Account for this difference in rainfall in a small area.

What minerals are found in Jugo-Slavia? Notice where the coal beds are located. Is this favorable? Recall the coal fields of Germany located near the Rhine, and their importance. Could the Jugo-Slavs manufacture farm machinery? equipment for railroads? boats? cloth? articles made from lumber? Why is carpet weaving important? What are the leading exports and imports? (See *Statesman's Year-Book*, 1921, page 1269.)

Mark off a score board as if for a game. Then list all the points favorable and unfavorable to Jugo-Slavia on opposite

sides of the line, and thus draw conclusions as to the possibilities of this interesting country.

Some significant facts for drill.

1. Location of the Danube, Drave, Save, Morava, and Vardar rivers, with relation to Jugo-Slavia.
2. Location of the following cities: Belgrade, Monastir, Cattaro, Spalato, Cetinje.
3. Some figure facts: area, population, annual output of leading agricultural products.
4. Three important railroad routes.

Suggestions for children's activities. Make graphs showing a comparison of Italy with Jugo-Slavia according to the statistics given in the following table:

TABLE OF COMPARATIVE STATISTICS

	Jugo-Slavia	*Italy*
Area	96,000 sq. mi.	110,000 sq. mi.
Population	12 millions	38 millions
Miles of railway	5600	10,000
Annual production —		
Wheat	28 million cwts.	87 million cwts.
Barley	5 " "	3 " "
Oats	5 " "	8 " "
Corn	37 " "	36 " "
Potatoes	15 " "	25 " "
Sugar	35,000 tons	124,000 tons
Cattle	5 millions	6 millions
Sheep	7 "	11 "
Hogs	3 "	2 "
Goats	1 million	3 "
Coal	3 million tons	2 million tons

Statistics from "Statesman's Year-Book," 1923.

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UNIT 16. CZECHO-SLOVAKIA AND CENTRAL EUROPE

Time required: 2 weeks

Finding the starting point.

1. Bohemians (or *Czechs*) whom we know in this country.

2. Czecho-Slovakia is a newly created republic which is now undergoing a testing time. For 1500 years these people have struggled to maintain their national existence. Political independence has just been granted to them. They are repeating, in some measure, the history of our own republic. They have our sympathy and our admiration.

3. Great men of Bohemia: Comenius, who gave to the world the idea of pictures in school books; John Huss, a great religious reformer; Thomas Mazaryk, the present great president, a philosopher and scholar, a peasant boy who became famous.

4. Bohemian music and art.

Reading the map. The following are typical of map facts which the children may be led to discover for themselves:

1. Czecho-Slovakia is almost in the middle of the continent of Europe.

2. It hasn't any seacoast.

3. It isn't very large. It is only 50,000 square miles in area. It is nearly three times as large as Switzerland, an independent country.

4. It has many mountains. So many of them are on the border that they make a kind of a fence for the country.

5. Czecho-Slovakia has several neighbors — Germany, Poland, Rumania, Hungary, Austria.

6. It is about 500 miles from the center of this country to the seacoast (North Sea, Baltic, or Adriatic). I wonder if that will not be a hindrance to trade with distant nations.

7. A big river, the Elbe, rises in Czecho-Slovakia and goes through Germany. Maybe the Czechs can use it to ship their products to the sea.

8. The Oder River rises in this country too, and goes

north through Germany. It looks as if the Czechs could trade with Germany easily.

9. And here is the Danube that touches its border at one place (Pressburg). They could use the Danube, and that would take them to the Black Sea.

10. There are not so many towns mapped in Slovakia as in the Czech lands. Are there not so many people there?

11. They grow sugar beets, barley, rye, oats, and flax in this country. I wonder why they don't grow wheat and corn.

12. They have coal, iron, copper, and clay in this little country. Probably they are a great manufacturing people.

13. The country is so rough in places that I wonder if there is not much waste land here.

Choosing some interest centers. An interest center is some definite thing one wishes to know about an area; something about which one has a lively curiosity. It may be a problem, although no single problem can center all the interests of an area so complex as this. It originates with the child and is expressed in his own words. It may be a question, a statement of a desire to find out something which is puzzling him, or it may be his wish to draw a comparison. It is what the child would like to do and to know.

The following are typical of the child's interest centers as he states them himself:

1. Why did so many Bohemians leave their own country and come to the Middle West in the United States?

2. I should like to find out how this little country got its independence.

3. Czecho-Slovakia reminds me of Switzerland, because it is a mountainous little country, without any seacoast. I should like to make a comparison of the two.

4. I am interested in this country, because it reminds me of our own country, in its struggle for political independence. I should like to find out if it has much chance to succeed as an independent country.

Gathering data and grouping results around an interest center. The interest center which seems to call for an

investigation of the more essential characteristics of Czecho-Slovakia, and which seems well adapted to children of these grades, is often expressed as follows: *I should like to find out if Czecho-Slovakia has much chance to succeed as an independent country.* The teacher should feel entirely free to use any other interest center which appeals more to the children. A problem of this type, however, should be worked out by the entire class. Other interest centers may then be assigned to smaller groups.

I should like to find out if Czecho-Slovakia has much chance to succeed as an independent country.

1. Let us summarize the favorable and unfavorable points we have gained from the map. This will help us decide whether or not we think Czecho-Slovakia can succeed as an independent country.

2. What further facts do we need to know in order to be able to estimate the possibilities of the area?

(*a*) Whether it has much good soil or not. What they raise there. Whether it has a favorable climate for food crops. (Rainfall and isotherm maps.) How much coal, iron, copper, and lumber it produces. (See encyclopedias and *Statesman's Year-Book* for figure facts on these products.)

(*b*) What kind of people are here? Can they all read and write? Are there different races in the country, which may make trouble for each other? Do they have good schools? Do they have good leaders? Have they a good constitution? Are they willing to learn from other people who have had more experience in managing a republic?

(*c*) Is there work enough in the country to keep the people busy and give them a chance to earn a living? Who owns the land, the common people or an aristocratic class? Are the farms small, or are there many large estates? (Which condition is better for a country? What condition is true in regard to France?) What is manufactured here? Why? Where are the markets for Czecho-Slovakian wares? Make a list of the occupations of Bohemians you know in this country. Compare this with a second list you make for Mexicans in this country. Which indicates the better training?

(*d*) Can the people of Czecho-Slovakia be sure of a passage through the countries which are between them and the sea? Are there good roads in this country? How many miles of railway do they have? (Compare with railway mileage of your home state.) Notice on the map the network of railroads in Czecho-Slovakia. Find the places where they cross the mountains. What is probably true about the mountains at these places? At how many points do the railroads cross the mountains (*a*) in Bohemia, (*b*) in Slovakia?

(*e*) Are the neighbors of Czecho-Slovakia friendly? This country has recently made friendly treaties with Rumania, Jugo-Slavia, Austria, and Poland. Why with these particular countries? Which of these countries are largely Slavic in population? What products have the Czechs which their neighbors need? (Notice that Austria is coal poor.) What products of their neighbors do the Czechs need? What does Czecho-Slovakia import from America? What has she to send us in return?

(*f*) List the field crops named in the product map or in the reading matter of your textbook, and find out, for each, the climate, soil, and labor requirements. Are cattle, sheep, and hogs abundant? (*Statesman's Year-Book.*) Can you see one reason for this? Is enough food grown here for all the people?

(*g*) Notice the coal and lignite fields. Are they well located? Find out how the coal output in Czecho-Slovakia compares with that of France; of Belgium. Why is clay listed on the map?

Summarize the favorable and unfavorable points gained from the entire investigation, and reach a conclusion regarding this — the most hopeful of all the new countries of Europe.

Suggestions for children's activities.

1. Selected children plan talks on Czecho-Slovakia to be given before some other grade.

2. Certain children personify Czecho-Slovakia and her neighbors. Each presents her case, asks for fair treatment,

and promises aid to the others. A representative of the United States appears, states our relation to the Czechs, and gives advice and friendly offers.

3. Model the country in sand. Locate the more important physical features, four or five cities, two or three railway lines, and two or three coal areas.

4. Make graphs comparing France and Czecho-Slovakia. France is so nearly self-supporting that it is always a good country with which to compare other areas.

TABLE OF COMPARATIVE STATISTICS

	Czecho-Slovakia	*France*
Area	54,000 sq. mi.	212,000 sq. mi.
Population	13 millions	39 millions
Yearly production —		
Coal	32 million tons	29 million tons
Pig iron	1 " "	3 " "
Wheat	1 " "	6 " "
Rye	1 " "	1 " "
Barley	1 " "	1 " "
Potatoes	4 " "	13 " "
Beets	4 " "	3 " "
Cattle	4 million head	13 million head
Hogs	2 " "	5 " "
Sheep	1 " "	9 " "

Statistics from "Statesman's Year-Book," 1923.

5. A debate. *Resolved:* That Czecho-Slovakia has as favorable an outlook as France for permanent independence.

6. Children rule off a score board, as for a game, and list favorable and unfavorable points.

7. An exhibit of pictures and articles from Czecho-Slovakia.

8. Talks on such subjects as: history stories of Bohemia; the opportunities for manufacturing in Czecho-Slovakia; Bohemians in America; the Sokol.

Significant facts for drill. Teacher and children together

make a list of the facts they judge most significant. After the list has been made in this democratic fashion, discuss ways of learning the facts, so that they will become easily obtained tools for further work. It becomes a matter of pride, of personal responsibility, that each child has these tools in readiness for use.

In the list include locational facts, figure facts, climatic data, human-interest facts, personal facts. Have the children rank these, numbering them in order of importance. This will then become a relative importance test.

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UNIT 17. THE UKRAINE, AND THE GREAT PLAINS OF EUROPE

Time required: 1 or 2 weeks

NOTE. Study Soviet Russia, Poland, and Rumania in connection with this unit.

Finding the starting point.

1. What is meant by a *prairie?* Our own prairie plains, with corn belt and wheat belt.
2. American relief for Russian famine sufferers.
3. Slavs we know in America. Where they came from, and what they do for a living.

Reading the map.

1. The Ukraine has a very irregular boundary. Part of it is along a swamp, part along a river, the Dniester, and a little bit of it is along the coast of the Black Sea.
2. It is a good thing for the Ukraine that Odessa belongs to its territory. That gives it a good seaport.
3. There are long rivers here. They remind me of the long rivers of our own prairie plains — the Mississippi and the Missouri.
4. There is not a mountain or a plateau in the whole country.
5. They grow wheat, barley, rye, and sugar beets.
6. There are coal fields along the Dnieper and the Donetz rivers. I think that would be a very convenient location. There is some iron, too, near the Donetz field. That ought to encourage manufacturing.
7. I think the farmers of the Ukraine could sell their grain to Germany or Britain, because neither of those countries raises enough for itself.
8. I wonder if the Ukraine would not be a hard country to defend, because it has almost no natural fence around it, as has Czecho-Slovakia or France.
9. Most of the cities seem to be on rivers — Kiev on the Dnieper, New Odessa on the Bug, etc.
10. The railroads make a kind of a network over the area.

I believe they are distributed more evenly than they are in Jugo-Slavia. One line connects with Moscow, two or three lines with Warsaw, and another line connects the area near the Donetz with Baku, the oil-well city, on the Caspian Sea. I am surprised to find so few lines extending to Odessa.

11. This whole country makes me think of our own wheat area in North Dakota. Both places are in about the same latitude. I believe the Ukraine has the advantage in that it can send wheat by water to foreign markets.

Choosing some interest centers.

1. Why have so many Little Russians, as the people of the Ukraine are called, come to America?

2. Is this prairie land able to furnish as much food as our Central Plains?

3. I should like to compare this prairie land with our own prairie plains and see which has the advantage.

Gathering data and grouping results around the interest center. The following suggestions pertain to the working out of the problem: *Compare the Ukraine and the Central Plains of the United States.*

1. Let us compare them first in size. The Ukraine is about 175,000 square miles. (*Statesman's Year-Book*, 1923.) The Central Plains of the United States are about one fourth of the entire United States. How many square miles is that in round numbers?

2. Now compare them in population. The Ukraine — about 26 million people. The Central Plains — about one third of the entire population of the United States. How many is that?

3. Compare them in their location in the continent. What advantage does the Ukraine have in this respect? Is a position on the Black Sea better than a location in the middle of a continent, even if the Great Lakes are a help in transporting farm products? Which of these two prairies is the farther north?

4. Compare the areas in rainfall and temperature. (See rainfall and isotherm maps.)

5. Compare as to crops produced in the two prairies.

From maps, list farm crops of the American prairies. Then compare with crops found in the Ukraine. Can you see why cattle, sheep, and hogs are numerous on the American plain and are not so important in the Ukraine?

6. Compare as to the location of iron and coal fields. What minerals found in one prairie are not found in the other? What manufacturing could develop in the Ukraine? Over half of the world's farm machinery is made in our Central Plains. Could the Ukraine develop that industry? Which of the two prairies is ahead in the making of sugar? Where are the oil fields which are nearest to the Ukraine? nearest to our prairie plains?

7. Compare the two plains in the number of large cities. Let Odessa and Chicago balance each other. Then see if you can find Ukrainian cities to match Cleveland, Detroit, Kansas City, Omaha, St. Louis, etc.

8. Compare the people of the two areas in education, in home life, in government, in training for citizenship, etc. (The Ukraine is now a Soviet state.)

9. Make any other comparison you think is a fair one; then score each area as to points favorable. Which prairie is the winner?

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SMITH: *Human Geography*, Book II.
WADE: *Our Little Russian Cousin.*
WHITBECK AND FINCH: *Economic Geography*, pages 449–460.

UNIT 18. FINLAND

Time required: About 1 week

Finding the starting point.

1. What we already know about lands of the far north.
2. What we know about the Finns as a people.
3. History stories of the Finns and their struggle for freedom.
4. Finnish music and literature. The Victor record "Finlandia."

Americans in general know so little about Finland that it is difficult for them to realize what an interesting and important country it is. The following brief quotations from magazines, books of travel, etc., may help the child to appreciate the admirable and intelligent people who live in this northern land:

Finland is preëminently the land of education and religion, the most progressive country in Europe in many respects, and a land that has sent hundreds of thousands of enterprising emigrants to America to develop our abundant resources. . . . In many directions Finland has led the world in moral and political reforms. She put prohibition into the constitution of the Republic six months before America did the same. She has had unrestricted woman suffrage for many years. . . . Education is free, universal, and compulsory, and her schools are superior to ours in some respects. — FRANCIS E. CLARK.

There is no more interesting people in Europe, and certainly not a more progressive and delightful one. . . . There is much about the Finn that is admirable. He is a believer in obedience to the law. He is honest and hospitable. Bravery, perseverance, and an intense love of liberty are attributes of the Finn which history tells. Only five in every hundred cannot read and write; in the neighboring Russia, about 70 per cent are illiterate. In the United States (judging by army statistics) about twenty in a hundred are illiterate. — *Journal of Geography.*

If I wished a son of mine to learn languages, gymnastics, music, and patriotism thoroughly well, I should send him to a Finnish school. — TRAVERS: *Letters from Finland.*

Finland is a little country, but it is the focus of some brave ideas, and its short story has no soiled pages. A desolate and water-logged land, in a hard northern climate, three quarters of its surface destitute of population, possessing no natural wealth except its forests, and no natural advantages except its waterfalls; where the ripening crops race against the descending

frosts for their harvest goal, and are often outstripped, and where the peasant for half the year lives like an Arctic explorer. Yet the very hardness of the struggle has made the Finn one of the sturdiest specimens of humanity — only the sturdy could survive; industry was the condition of his existence; his loneliness has bred self-reliance, and his long solitudes have awakened faith. He has a natural bent for science; art has been born to him, vigorous and independent in quality; literature has by nature deep roots in the hearts of the men of these chilly, infertile lands. — NORMAN: *All the Russias.*

Reading the map. With some care in questioning on the part of the teacher, the children may discover for themselves most of the following map facts or others equally significant:

1. All of Finland is north of the 60th parallel.
2. The Arctic Circle crosses Finland about two thirds of the way north. I don't see how a country as far north as this could amount to much.
3. Russia, Norway, and Sweden are the neighbors of Finland.
4. There are so many lakes scattered over the country that it reminds me of New England. I wonder if the lakes of Finland were made by a great continental glacier, too.
5. The map shows that Finland has a long coastal boundary. The boundary between Finland and Russia seems to be an irregular line that is not determined by natural features, except at Lake Ladoga.
6. There are not many towns mapped in the northern part.
7. They grow rye, oats, and barley here. I am sure it would be too cold for corn, but I wonder why they do not raise wheat. In the southeastern part they raise some cattle. What do they have to feed them?
8. Timber is found here. They could probably sell some lumber to Germany and to Britain, because both of those countries have not enough of their own.
9. The rainfall map shows that the southern part of the country has enough rain for most field crops.
10. The population map shows that there are more people around the coasts than in the interior.

11. The railroad lines are in the south and west only. One line follows the coast of the Gulf of Finland to Petrograd.

12. Reindeer are found in the northern part. That would help provide meat for the people.

Choosing an interest center. A statement in the child's own words of something he would like to do or to know about a given area may become an interest center for the study. The following are typical:

1. I should like to know how any one could live in such a country as this.
2. Why are the Finns so much better educated than their neighbors, the Russians?
3. How did the Finns gain their independence from Russia?
4. What do Finns look like, and what are some of their customs?
5. There are some Lapps in northern Finland. I should like to know more about them.
6. How is a herd of reindeer cared for? Why does it pay to raise reindeer?
7. How do the Finns make a living in such a cold country?

Gathering data and grouping results around the interest center. The interest center chosen for this study is the seventh in the above series. The teacher should feel free to use any other which seems to appeal to the children.

How do the Finns make a living in such a cold country?

1. What opportunity is there here for farming? Judging from the soils, rainfall, and July temperature (isotherm map) of Finland, what are your conclusions regarding farm products? Is this a good pasture land? Reasons. (See *Statesman's Year-Book* and encyclopedias for lists of farm crops and annual yield of each.) What fruits are found in Finland? How long are the summer days at Helsingfors? Does this fact help to explain some of the farm production? What means of transportation are afforded to the farmer for his dairy products and his crops? Notice on the map how the many lakes are connected with each other and with the

Gulf of Finland by canals. Are the markets near at hand? How does the farmer clear and drain his lands?

2. Is mining extensive? Copper, iron, granite? Is coal found here?

3. What opportunity is there for fishing? (Lakes, rivers, gulfs, kinds of fish.)

4. Are the forests valuable? J. Russell Smith says in his *Human Geography:* "Most of the farmers of Finland have two jobs, one for the winter and one for the summer season. In the summer they tend their little farms; in the winter they go into the forests and camp there. They chop wood and drag logs to the stream bank. In the spring the logs are floated down the stream, just as is done in the forests of New England. Then there is a rush of ships to the ports, to get loads of lumber, poles for coal mine props, and wood pulp for the paper mills."

What kinds of trees are found here? Where in North America is there a forest area like this? What European countries are greatly in need of lumber from Finland? What does each of these countries sell to Finland? (See *Statesman's Year-Book*, 1921.) From the encyclopedias find out about water power and its development in Finland. In how many ways can such power be used in the Finnish lumber industry? What manufactures are possible in this country?

5. Are the Finns an energetic people? The Finns are not Slavs, like the Russians or the Poles, but are related to the Mongolian race. Are Mongolians as a rule very energetic? What traits in common do you find in Finns and Chinese? How do they seem to differ? Is the climate of Finland energizing? What is its chief advantage? What are some of their pastimes in Finland?

6. What kind of people are the Lapps, and how do they make a living? Are they as progressive as the Finns? Some years ago our government brought some Lapps to Alaska to teach the Eskimos there how to care for reindeer. Stefansson, a famous Arctic explorer, says that we shall all be eating reindeer meat as a regular article of diet in a few years. Does this give promise of greater markets to the Lapps?

7. Summarize all the possibilities you can discover for people to earn a living in Finland; then try to find out why the people are so progressive and intelligent. Show how long winter days encourage the reading habit.

Suggestions for children's activities.

1. Make a graph comparing your home state and Finland in (*a*) area, (*b*) population, (*c*) cereal production, (*d*) number of cattle, sheep, hogs, (*e*) forested area, (*f*) railroad mileage.

(The following figures show a comparison with one of our food-producing states.)

Table of Comparative Statistics

	Finland	*Nebraska*
Area	132,000 sq. mi.	77,000 sq. mi.
Area cultivated	9$\frac{9}{10}$%	46%
Area forested	50%	3%
Population	3$\frac{1}{3}$ millions	1$\frac{1}{3}$ millions
Miles of railway	2685	6300
Grain yield —		
Rye	9 million bu.	3 million bu.
Barley	4 " "	4 " "
Oats	25 " "	56 " "
Corn	0 bu.	182 " "
Wheat	0 bu.	59 " "
Potatoes	16 million bu.	4 " "
Hay	2 million tons	6 million tons
Live stock —		
Cattle	1 million	3 millions
Sheep and Goats	800,000	290,000
Pigs	110,000	3 millions

Statistics from "Statesman's Year-Book," 1923.

2. Have groups of children dramatize scenes in the life of Finland such as:

(*a*) A scene at Helsingfors when the ice breaks up in the spring and the ships begin to come into the ports for lumber.

(*b*) A Finnish lumber dealer sells a bill of lumber to an English buyer.
(*c*) A group of Finns discuss their freedom from Russia.
(*d*) A scene in a Lapp hut in winter.

References

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BOWMAN: *The New World*, Chapter 22.
BRIGHAM AND MCFARLANE: *Essentials of Geography*, Second Book, page 333.
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MCMURRY AND PARKINS: *Advanced Geography*, page 356.
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SMITH: *Human Geography*, Book II, pages 247–250.
STEFANSSON: *The Friendly Arctic*.
THOMSON: *Peeps at Many Lands: Finland*.
TRAVERS: *Letters from Finland*.
WHITBECK AND FINCH: *Economic Geography*, pages 410–413.

UNIT 19. JAPAN

Time required: About 4 weeks

Finding the starting point. What do you know about the Japanese in our own country? What kind of work do they do? How do they live?

What Japanese articles do you have in your home? Have you read anything about earthquakes in Japan? volcanic eruptions? Recall the visit of Commodore Perry to the Japanese ports, as you read of it in history. Look up the date and something of the incident. This was the beginning of a miraculous change in Japan. In the seventy years which have passed since then, the country has been remodeled into a modern nation. What did Commodore Perry do which helped to bring this about? Did you read about the Washington Naval Conference? Do you recall Japan's rank among navies of the world? Do you have friends who have traveled in Japan? Perhaps they would answer some questions when we are ready to ask them definitely. What Japanese cities can you name? Can you tell anything specific about any of these? Can you recall any famous Japanese men you have read or heard about? What is the sacred mountain of Japan? Recall accounts of Japanese victories in the war with China, or the war with Russia. What was Japan's part in the World War? What difficulty has been encountered with regard to the Japanese on our Western coast? Do you know of some other countries that also try to keep the Japanese out of their lands?

If we are thinking about the Japanese in a prejudiced way, would it not be fair play to forget everything prejudicial, and to take up this study with but one purpose, to investigate whatever information is available so that we may learn to settle questions as fairly and justly as possible? That is what we wish the Japanese to do when they study about the United States in their schools.

Reading the map. Before starting to read the map, outline the boundaries of the empire, then of Japan itself.

Pronounce aloud the names of the four southern islands. The children should then be led to discover the following facts for themselves:

Japan is made up of islands. It makes me think of Britain or of New Zealand. The island chain is very long. By the scale of miles it must be nearly 2000 miles from Formosa in the south to Sakhalin in the north. The latitude ranges from about 22 to 51 degrees. That means there is a great variety of climate here. All the islands seem to be mountainous. The map does not show many plains. I wonder if there are minerals in the mountains. These islands are east of the continent of Asia. I remember that we found it was a great advantage for islands to lie to the west of a continent, as in the case of Britain. I wonder if Japan is unfortunate in being east of the continent of Asia. (The teacher suggests here that when they talk about continental circulation, which causes monsoons, it will explain something of the effect the continent of Asia has on the climate of Japan.) Japan is closest to Asia near Formosa and Korea and in northern Sakhalin. The rainfall map shows that most of Hondo gets 40 to 80 inches of rain. The island of Hondo (or Honshu) curves away from Asia. Japan is not very far from the Philippine Islands. The population map shows that Japan and Korea are densely crowded. The northern islands are not densely populated. It looks as if Sakhalin were almost empty of people.

I can see that the coast of the islands is very much indented; this makes me think of Britain, too. I should expect many good harbors here.

Japan faces the largest ocean. I think this might help to account for her slowness in getting into world commerce. The three southern islands of the main group (Kiushu, Shikoku, and Hondo) have more cities mapped on them than the others. There are some long, slender chains of islands that extend from the main chain — the Kurile Islands, to the northeast; and the Hansei, toward Formosa.

I think Sakhalin would not be a very valuable possession to Japan, unless it has minerals. It is too far north. Since

Formosa is on the Tropic of Cancer, it might have a climate like Cuba. (The teacher again suggests that there is a new factor in the climate of Formosa which was not found in Cuba. This will be explained later. She says, however, that it has to do with the influence of the biggest continent and the biggest ocean.) Evidently, Korea (or Chosen) is a valuable possession. It is crowded with cities and looks as if it might have good harbors. It has many mountains, too; I wonder if they are forested. There are more railroads in Hondo than in the other islands. I do not see any railroads on Sakhalin. I can see on the economic map that silk, copper, tea, and rice are shipped out of Japan. They import cotton, wool, sugar, iron goods, and rice. Why do they export rice, if they import it too? The map shows that coal is sent from Nagasaki. I wonder if Japan has much coal. There are so many mountains here that I should expect the rivers to have many waterfalls. I wonder if there is much water power in the country. I should expect heavy rainfall on the islands.

Finding some interest centers. Now that we have discussed informally what we know about Japan, and have read the map, what are the interest centers, the things you would like to know or to do, with regard to Japan? The following will suggest themselves to most classes:

I should like to find out just how the people live — to know about their dress, houses, games, customs, etc. I should like to make a special study of rice. I should like to model the island chain in sand and locate the largest cities, the most important mineral areas, and one or two mountain chains. I wonder how Japan got to be a world power, since its people are not of the white race. I should like to find out how Japan is governed. I should like to know more about the Japanese on our Western coast. I should like to find out just why the Japanese wish to emigrate, and I think it would be interesting to learn where they go and if they are welcome anywhere. I should like to find out why the Japanese wanted to own Chosen. And I think it would be interesting to find out of what value Formosa is to Japan.

Why are the Japanese so artistic? I should like to find out all I can about tea. Why is Japan so eager to get a foothold in China? Do the Japanese have good schools? The British are great sailors and fishermen. I should like to find out about the Japanese in that respect. Do they have a large army and navy? Are the islands easily defended? Why do people live where there are so many earthquakes and active volcanoes? How does it affect their everyday life? How much of these islands can be farmed? Does the climate favor farming? Are there many farmers in Japan? What are their leading crops? Why do so many nations wish to keep the Japanese out of their lands? What characteristics of the Japanese are there to admire? Do we trade much with Japan? Are there many great factories in Japan? What do they manufacture? We found much home manufacturing in Italy and Switzerland; is home manufacturing found in Japan? Are the people well educated? Do they have good schools? I should like to score Britain and Japan to see how they compare. I find in the Appendix of our textbook that Japan has an area of about 148,000 square miles and a population of more than 55 millions. I should like to know how so small a country can take care of so many people.

Working out one of the interest centers. Select one or two interest centers which have been suggested by the children as a basis for general class study. Then permit small groups, or individuals, to work out other interest centers and report on them to the class. Perhaps the last topic suggested might be chosen as the one for the class to use in committee of the whole.

How can so small a country take care of so many people?

Is this really a small country? With what countries may we compare it, to see if any other world powers are as small? How does it compare with Britain, France, Italy, in population? How many people are there to the square mile? Compare with the three countries mentioned before. In most countries with over 300 people to the square mile, what is the usual means of making a living? In Japan about 65 per cent of the people live on farms, and these farms aver-

age only three acres each. Let us find some reasons why the farmers get a living on so small an area. Is the soil especially fertile? Is the climate very favorable to crops? Note the four climatic zones in the islands as follows (*Journal of Geography*, September, 1921):

1. *Northern zone.* Here the ground is frozen in winter. Only summer agriculture is possible. This zone includes the northern part of the island of Hondo, and other islands to the north. Notice the population map, to see how sparsely this zone is settled. What crops are found here? Would a three-acre farm here support a Japanese family?

2. *Central zone.* This includes most of the island of Hondo. We might call it the Tokyo area, the most progressive part of Japan. Here two and even three crops a year are grown. What are these crops? How does the Japanese farmer make use of every inch of the land and keep the soil fertile? What use does he make of the hill lands? In Japan, one is never out of sight of mountains. There must then be much need to learn hill farming. Does the Japanese farmer have an easy time?

3. *Southern zone.* This is the Nagasaki area. Here three crops a year are grown. What are they?

4. *Tropical zone.* The tropical zone includes the island of Formosa, which lies off the Chinese coast and was originally a part of China. What is the chief agricultural product of Formosa?

Is the monsoon an advantage to Japan? Explain how the continent of Asia disturbs the world-wind scheme and causes a continental circulation. (See *ante*, Unit 9, South America.) The seasonal winds thus produced are called *monsoons*. Monsoon lands are usually very densely populated. Can you suggest five reasons why this is so? (Smith: *Commerce and Industry*, page 441.) Why do summer-rain areas have denser population than winter-rain areas?

Is the climate in the more crowded part of Japan such that warm houses and much fuel for heating are required? Are the Japanese houses heated to as high a temperature as ours in cold weather? What materials for clothing

are produced in Japan? Is heavy winter clothing required? What clothing materials are imported?

Are there many meat animals here? dairy animals? beasts of burden? Account for this. How is farm work done? What meat substitute is found here? How do the Japanese get along without butter and milk? How is the lack of leather for shoes, etc., overcome? What use is made of paper and straw?

It may be necessary for the Japanese farmer to find some other means of income for part of the year. This suggests the type of home manufacture often found in crowded lands. Tell how the silk industry is carried on in small peasant homes. What other home work is taken up? How does tea growing provide work for many laborers? rice farming?

Write a page telling how a very small farm can support a Japanese family.

Why is Japan being driven to develop manufacturing? Is there much coal for power? Has water power been developed? What raw materials are at hand for manufacture? What materials are imported? Where are the markets for Japanese wares? Is Japan in the line of heavy ocean traffic? of coastwise trade? Has Japan a merchant marine? Are the Japanese skilled workmen? In what type of manufacture do they excel? In what respect do they remind you of the French? Explain in some detail the process of silk manufacture.

How are peasant homes built? Do the earthquakes shake them down? About how much capital is required to build and furnish a house? What is the usual menu in a Japanese peasant's home? Is this food imported, or is it largely raised at home? Does the English workman secure most of the food that is placed on his table from farms in the vicinity, or is it largely imported? Why is there this difference? Rice is the most widely used human food. Is it a perfect food? What is used to supplement it?

As one family after another in the crowded areas desires to improve conditions of living, what will probably happen?

As a rule, are the people educated? fond of travel? Do you think some of them should emigrate? What lands are open to them? What sparsely settled lands are most conveniently located? What is the relation of the Japanese to China? to Siberia? to Australia? to South Africa? to South America? to Mexico? Why do we not encourage them to settle on our Pacific coast? Summarize reasons to show why Japan can support so dense a population.

Table of Comparative Statistics

	Japan	*British Isles*
Area	148,000 sq. mi.	121,000 sq. mi.
Population	56 millions	47 millions
Location	East of great continent, faces greatest ocean, lies farther south	West of continent, faces smaller ocean
Surface	Small extent of plains	Much more of surface is plains
Portion cultivated	About 1/6	About 1/7
Soils	Fairly good	Excellent
Breadstuffs		About 1/6 of that used
Live stock	Cattle 1⅓ millions	12 millions
	Sheep 5 thousand	23 "
	Hogs 470 "	3 "
Clothing material	Silk, cotton, paper, straw	Some wool and flax
Coal output	29 million tons	About 230 million tons
Per cent of population farming	Over 50%	About 5%
Railway mileage	7000	24,000
Forest	Over half the area forested	Little
Army (in peace)	250,000	225,000
Value of foreign trade (1919)	$213,000,000	$7,000,000,000

Another interest center. After such a discussion as the one above, it might be helpful to work out a comparison of Japan and Britain. (See Branom: *The Teaching of Geog-*

raphy, Chapter 14.) Compare the two island kingdoms in area, population, location, extent of level land, per cent of area cultivated, breadstuffs raised, number of meat animals, clothing materials produced, coal output, per cent of people farming, per cent of illiteracy, railway mileage, forest area, foreign possessions, merchant marine, army in peace, foreign trade. Most of the facts may be found in the *Statesman's Year-Book* and in encyclopedias. After you have completed the score, decide in what points the countries are much alike. In what points are they very different? Can you explain now why Japan is called a world power?

Comparing people. Another comparison might be made between Japanese people and Americans, to show how they differ from us in many points. Perhaps it will help us to understand them better if we identify some differences in thought and in training. (See *Literary Digest*, January 7, 1922.)

The Japanese	*The American*
Looks down on business men.	Honors business men.
Honors the soldier above all.	Abhors war.
Is trained to repress his feelings.	Expresses his emotions freely.
Has charming manners.	Is rather careless about manners.
Subordinates himself to the good of his nation.	Is strongly individual.
Is intensely patriotic.	Is quietly patriotic.
Sincerely enjoys the beauties of nature.	Is slow to appreciate natural scenery.
Has been educated to fit an exact place in a rigid society.	His education is aimed to develop the individual.
His religion is Buddhism or Shintoism.	The Christian religion.
Devotion to ancestors is reckoned as the chief virtue.	Personal honesty and integrity the chief virtues.
Strongly social. Cannot work alone.	Can face the loneliness of pioneer life.
Has great manual dexterity. Artistic.	Less manual dexterity. Slow to develop art.

Think of five points in which we are similar. Why are the Japanese called the "Yankees of the East"? In what ways have they imitated the United States?

Children's activities.

1. *Debates.*

   Resolved: That the Japanese should be permitted to migrate to any sparsely settled lands.

   Resolved: That monsoon lands are the most favored lands in the world.

   Resolved: That the Japanese should permit Korea to regain her independence.

2. *Talks and dramatizations.*

   A visit to Tokyo; a visit to a tea plantation; how silkworms are cared for; a group of Japanese tell of a recent visit to the United States; a Japanese citizen explains to us how his country is governed.

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STEAD: *Japan by the Japanese.*
WATSON: *The Future of Japan.*
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UNIT 20. THE CHINESE REPUBLIC

Time required: About 4 weeks

Finding the starting point. The teacher may start an informal discussion by mentioning such subjects as the following: The Chinese we know in America. Why do they come here? What work do they do here? Do they expect to spend all their lives here, or do they plan to go back home? Have any of your friends traveled in China? Have you read any books on Chinese life? How many of these words do you know: *coolie, sampan, mandarin, sedan chair, pidgin English, pagoda, chopsticks, junk, Manchu, queue?* In history, do you recall stories of the Boxer Rebellion? What Chinese customs do you know? Have you read about the Great Wall of China? Do you know that the Chinese are given credit for such inventions as gunpowder, printing, silk making, chinaware? Can you name others? Of course tea and rice and silk remind you of China. Does kite flying? Is there a breed of chickens that is Chinese? Is that surprising when China is second in the world in the production of chickens and eggs? Do you recall any Chinese or Mongolian heroes, as, for instance, Genghis Khan, Tamerlane, Confucius, and General Wang?

Reading the map. Before beginning the individual search for map facts, have the whole class trace the outline of the Chinese Republic. Note that this great country is made up of five regions: Manchuria, Mongolia, Eastern Turkestan (Singkian), Tibet, and China proper. If we speak of the Chinese Republic, we include all these areas. If we speak of China, we mean that southeastern part of the republic which is China proper. This map is difficult but fascinating. Its facts are not so easily discovered as are those of the map of Canada, for instance, but the children will find some very significant and far-reaching truths. Encourage them, in this map especially, to search for *comparisons* and *inferences;* to say "that reminds me" and "I wonder why." The

following may be readily brought out in class discussions and readings:

It looks to me as if the Chinese Republic took up one fourth of the whole continent. It has a surprisingly short coast line for its area. Think how much coast line the United States has, and it is not so large. The coast is not very much indented. I do not see any long drowned valleys like Chesapeake Bay or Delaware Bay. There is no very prominent projection, except Shantung. The coast line looks so straight, and the land back of it is a plain. I think, then, that the water off the coast is rather shallow. I do not believe there would be many good harbors here. The Gulf of Pechili is the greatest indentation. I wonder if the greatest ports are there. Perhaps it is too far north for the heaviest trade. One seaport, Hongkong, belongs to Britain. I wonder why. Most of the boundary lines of the republic are very crooked. Some of the boundaries are mountain chains — the Tien Shan, the Sayan, and the Himalayas. The Amur River also forms part of the boundary of Manchuria. Manchuria is almost entirely cut off from the coast by Korea and a part of Siberia. This makes me think of the west coast of Canada, with the long stretch of Alaska cutting off part of it from the Pacific. Most of the cities of the Chinese Republic are in China; there are very few in Mongolia, Turkestan, and Tibet. Mongolia has a desert in it — the Gobi; so has Turkestan — the Taklamakan. Since there are so many mountains and high plateaus, and such large deserts, there must be a lot of waste land in the Chinese Republic. I wonder if the mountains and deserts acted as a fence to keep people out of China. There are some very long rivers here, but they loop about so, it is hard to trace them. (The teacher asks them to trace two, the Hoang and the Yangtze, because these rivers play a prominent part in Chinese life.)

I can trace the Great Wall between China and Mongolia. Pekin is in about the same latitude as New York. China reaches from the Tropic of Cancer to 50 degrees north. It has almost the same latitudes as the United States, from

Florida to Maine, but is a little farther north and south. I wonder if there are as many kinds of climate in China as in the United States. I see the Grand Canal connecting the Hoang and the Yangtze. It must be a long one. The map shows me that the Yangtze is a mountain stream in its upper reaches and a wide river of the plains in its lower course. That reminds me of the Missouri. The population map shows that the coastal part of China is very densely populated. Mongolia has the fewest people of any region in the Chinese Republic. I have been looking at a population map of the United States, and I find that the most crowded part of China is farther south than the most crowded part of the United States; I wonder why. China is divided into many irregular-shaped provinces. The rainfall map tells me that the crowded part of China has a rainfall of from 20 to 80 inches. Most of the crowded area of China has mild winters and hot summers, according to the temperature map. I wonder if the mild winters and hot summers do not help to explain why so many people can live in that part of China? I find that much of Tibet is always cold. Much of Mongolia has hot summers and cold winters. I find summer rainfall is common throughout most of China, although the southeastern part seems to have two rainy seasons. I suppose that they can raise more than one crop, then.

Discovering interest centers.

1. Why is China proper so densely settled when the other four areas are so sparsely settled?
2. What effect does it have on people to be so crowded?
3. What hope is there for China to become a world power?
4. Why is Japan so far ahead of China?
5. Can the different people of the republic understand each other's language?
6. Why are there so many farmers here?
7. Just how do they farm in China? How does it differ from our farming?
8. Why are the people so poor?

9. What do they eat?

10. I should like to find out how folks live on house boats.

11. I should like to tell about the Hoang River and why it is called " China's Sorrow."

12. Why have Manchuria and China proper so much more rain than the other three provinces?

13. Are there too many people trying to live in China proper? Why don't they move out into the sparsely settled districts?

14. How do the Chinese feel toward the United States? I should like to read about that.

15. Why are there so few railroads?

16. Does China have coal and iron?

17. Could all the people of this republic get together and form a united government?

18. Were the Chinese ready for a republican form of government?

19. Why are North and South China disagreeing? Is it anything like our North and South before the Civil War?

20. I should like to read something about the Great Wall.

21. I should like to find out about the trade of China. Do we trade much with her?

22. I should like to find out about some of the strange customs of the Chinese.

23. Why was China secluded from the rest of the world for so many years? Why did she not pick up Western civilization as rapidly as Japan?

24. I should like to find out just what are China's greatest needs.

25. I should like to compare China and the United States.

26. Why was China once a leader in civilization, and why is she now so backward?

Working out some interest centers. *What chance has China to become a world power?*

Here is a great country, larger than the United States. It has four hundred million people living in it. In spite of its enormous extent and great population, it counts for very little in world affairs. It has continually been interfered

with by foreign powers. Its government is unstable, and its people seem to be in confusion. Let us see what chance there is for China to gain a stronger position among the powers.

What do we need to find out in order to talk about this subject fairly? One boy suggests, "I think we ought to find out what the people are like." Another says, "And I think we ought to know what their country is like, as well." A third says, "We ought to find out what the rest of the world thinks of China — that is, how it treats China and how China feels toward it." With these very natural questions as an outline, the study proceeds somewhat as follows:

1. What are the people of China like physically? Stature, build, complexion, health (high death rate mentioned), resistance to disease, endurance, energy, daily food of common people (largely vegetarian). Quality and quantity of food, standards of living, results of the terrible struggle for existence in this crowded land. (*See* Ross, E. A.: *The Changing Chinese*, Chapter 4.) What physical type is common in Tibet? How does it differ from that found in Mongolia or Turkestan? Summarize favorable and unfavorable points in this discussion. Reach a conclusion as to whether the Chinese are physically equal to other peoples who have gained the rank of a world power.

2. What are the intellectual and moral traits of the Chinese? Patient, polite, peaceful, abhorrent of the use of force, reliable, likable, quick to learn, good-natured, very proud of race and family, little individualism, thrifty, very industrious (some one has said that the Chinese have an appetite for work), very fond of children and of their homes, have high regard for education, superstitious, temperate, largely illiterate (90 per cent of the common people cannot read), inexperienced in popular government, not trained to be public-spirited, not inclined to travel about and see other sorts of people, conservative (many of them believe all wisdom was given to the ancients), religious, etc.

What traits here are to be admired? to be corrected?

3. What are the social conditions under which the people live? Crowded areas; insanitary cities; weak and irresponsible government; very few railroads, except in eastern provinces; few good roads (most of the highways are mere footpaths: the wheelbarrow is the most common vehicle); no system of public schools; few newspapers or magazines; little public control of health, sanitation, highways, street lighting, or water supply; poverty of the masses; danger of famine and plague; need for flood control of rivers; etc. Customs which hinder: foot binding, among women; low position of woman; ancestor worship; cumbersome method of writing; superstitious practices; etc. Recent improvements: highways and railroads now being constructed; agitation against foot binding; governmental adoption of phonetic alphabet; education of many Chinese students in foreign universities; establishment of schools; education of girls slowly beginning; river and harbor improvement; etc.

4. How do the people make a living? Since more than 80 per cent of the people are dependent on agriculture, farming is the industry we should study first.

Size of the farms, character of the soils, leading crops (*North China:* millet, wheat, vegetables, soy beans, forage. *South China:* rice, cotton, mulberries, wheat, tea, etc.). Amount of food produced on farms? Why is crop yield per acre higher in China than in the United States? Methods of intensive agriculture: careful fertilization; rotation of crops; multiple cropping (in South China as many as seven crops a year); use of dry-farming methods; supplemental irrigation; terracing uplands; draining lowlands. Difficulty in transportation of farm products. Wheat may be 10 cents a bushel at Chenfu, in the eastern province of Szechuan, and $2.50 a bushel at Shanghai. Does a railroad connect these points? Most of the farmers own their farms. Is this a good thing? How is the bamboo helpful to the Chinese farmer? "Imagine how he would pity an American farmer, with no clumps of bamboo to make things with, no soy beans, and no persimmons," says a

writer in *Asia*. What harm has been done by deforestation? Read about grazing in Mongolia, Tibet, Turkestan.

Manufacturing is developing slowly. Why? *Home industries*: silk making, cotton and woolen weaving, straw weaving and braiding, rug making, preparing tea for market. *Industrial plants:* These have been established for the manufacture of textiles, brass and iron work, flour, glass, porcelain, soap, etc. Conditions favoring manufacture: cheap and willing labor, raw materials. What raw materials for manufacture are found in China? Has China abundant coal for power? (China ranks next to the United States and Canada in the amount of available coal. The province of Shansi has much anthracite coal, much iron ore, and is one of the richest copper areas in the world. Look on the map to see if Shansi has railroads.)

Are markets convenient for manufactured goods? In this crowded land would the home demand be great? For what goods especially? Could China compete with other manufacturing nations in getting world markets? Would she be able to compete with Japan? Why has Japan developed manufactures so much more rapidly? What have been the chief hindrances to industrial development in China? Large-scale manufacturing calls for the organization of big companies. Why is this difficult in China?

5. What is the country of the Chinese like? Recall map facts which help in this problem. How is it located with regard to the leading nations of the world? Is it on important land highways? Is it accessible to leading ocean highways? About how far is it from the United States? Britain? Japan? Are its neighbors generally progressive? friendly? Are its boundaries natural, in the main? Would the country be easily defended? Is the great size of the area a help or a hindrance? How does it affect the spread of Western civilization? Compare with Japan in this regard.

Are the surface features and their arrangement favorable to the development of the Chinese Republic? Notice that the highlands lie to the west and the plains area is nearly all in the east. There is no great central plain such as we found

in the United States. Is this plan of surface features a good one? Does it favor unity? Is communication easy throughout the republic? How do the rivers help? Do they help to determine density of population? Would it not be interesting to compare the surface of this country with Russia? What do you notice? Russians, on their great open plain, are much alike in language, customs, and ideas the country over. Is this true of the people of the Chinese Republic? Is the coast the best type for numerous harbors? How do the river mouths help? Are the rivers tidal? What minerals, essential to industrial development, are found here? Recall the great prairies of Manchuria and Mongolia waiting for pioneers. Will this help? What timber lands are found here?

Is the climate favorable to the development of human energy and to the production of food crops? Recall how the summer monsoon gives a growing season; the winter monsoon a ripening and recuperative season. Describe the continental climate of Manchuria, Mongolia, and Turkestan; the effect of high altitudes in Tibet; the monsoon climate of much of China proper. What advantages does a country supporting a dense population derive from a monsoon climate? How does the climate of southeastern China differ from that of southeastern United States? How do the two areas compare in density of population?

Is the government firm and responsible? When did China become a republic? What form of government did the Chinese have before? Are they united in maintaining a good government? What are the chief differences between North and South China? What do the people of Mongolia fear from the central government? Are the Tibetans in sympathy with the Chinese? How does the feeling of strong family ties often hinder China from getting the right kind of officials? Bribery seems to be practiced very generally. Would the hard struggle for existence help to explain this situation? Has China a large army? a navy?

6. What are China's relations with other great nations?

(*a*) *The United States.* The United States has tried to

practice the Golden Rule with China. Look up in your history the account of John Hay and the " Open Door " policy. Wasn't this a case of " when a feller needs a friend "? How about the Boxer indemnity? What did China do with this money after it was returned to her? How has our country helped China in times of famine? What was our attitude in regard to the return of Shantung after the World War? No doubt China's sincere admiration for the United States made her wish to become a republic. How is the United States helping China in her fight against opium?

(*b*) *Japan.* What difficulties or jealousies have arisen between the two nations?

(*c*) *European countries.* What countries have seized parts of China? Should China be divided among European powers, as Africa was?

Summary. Looking over all the facts you have found in your study of China, reach conclusions as to which points are favorable and which are unfavorable to China's becoming a world power. On the whole, what chance has she? John Hay said, " Whoever understands China, socially, politically, economically, and religiously, holds the key to world politics for the next five centuries." What do you think he meant?

Children's activities. Suggest five recommendations you would make to China for needed improvements. Plan a pageant, portraying each one of the provinces of the Chinese Republic. A group represents Mongolia by description, pantomime, etc. Another group selects representative scenes from Turkestan, a third from Tibet, and so on.

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UNIT 21. THE INDIAN EMPIRE

Time required: About 4 weeks

Suggestions for an introductory discussion of India. Have you read or heard something about caste in the Hindu religion, and how it affects the people of India? Have you seen pictures of the Taj Mahal? Do you know its story? Have you read the *Jungle Book?* any other of Kipling's stories or poems which tell about India? Do you know persons who have been there? We seldom see natives of India in our country, although it is not unusual to see Chinese and Japanese. We wonder why India furnishes most of the gunny sacks in which grain is shipped. Could we use sacks made of cotton instead? Most of us know that India raises tea. What other articles are raised that we use commonly?

Just offhand, what are some of your present impressions about India? Is it large or small? crowded or sparsely settled? highly civilized? independent politically? What ideas have you as to its general type of climate? Have you ever wished to visit India? Why?

Have stories of the history of this unusual country reached you, as, for instance, the Siege of Lucknow? the Black Hole of Calcutta? the East India Company? accounts of Indian soldiers in the World War? One native soldier of India who did good service in France told some of our American boys that the thing that impressed him most in all Europe was the *fine breeds of cattle.* Can you give any explanation of that statement now? If not, you will see it very clearly after a little study of this remarkable country. Have you heard of some terrible famines in India?

What do you know about teakwood? Some persons think it is the most valuable wood in the world. You will be interested in finding out about it. Do you recall what Kipling says about "Elephants a-piling teak, in the squdgy wudgy creek"? Rattan, used for chair seats, is found here also, especially in Burma. You recall that the

United States Rubber Company, and other great rubber companies in our country, are buying much of their raw rubber from the plantations of southeast Asia, rather than from the areas of wild rubber in South America. In Ceylon (not part of the Indian Empire, but close to it geographically) you will find some of the most valuable tea and rubber plantations in the world. Have you read anything about airplane exploration of the Himalayas? Think over the various subjects we have talked about in this introductory discussion. Tell me the items you now think you will be most interested in.

Here is a list of interesting words that come to my mind when I think of India: *fakir*, *punkah*, *bazaar*, *juggler*, *mosque*, *pagoda*, *caste*, *pariah*, *rattan*, *cashmere*, *water buffalo*, *cobra*, *teakwood*, *sesamum*, *indigo*, etc. How many of these do you know already?

Reading the map. India is a large peninsula, the middle one of the three which extend southward from the continent of Asia. It has mountains and the sea for its boundaries. I should think it could be easily defended. It has an irregular central plain, which runs east and west across the top of the peninsula. That makes me think of the Lombardy plain. I wonder if it is as important to India as the Lombardy plain is to Italy. The southern part of the peninsula is a plateau. It reminds me of Mexico, with its high interior and narrow coastal plains. Mountains border the peninsula on the east and the west. The Western Ghats are probably the highest, because I notice that the longer rivers flow toward the east. I see by the political map that the Indian Empire extends beyond the Bay of Bengal and takes in Burma. The population map shows that most of the country is densely settled, especially in the plains. There is a desert, the Tharr, near the western end of the plain. When I look again at the population map, I can see that the area of least population is located in that desert. Another area of sparse population is in Burma, and a third is on the plateau in the southern part of the peninsula. The rainfall map shows that a certain area along the Himalayas has more than 80 inches

of rain. Another region of heavy rainfall is along the western coast, and another is near the coast in Burma. According to the rainfall map, most of India has summer rain. I have been looking at the seacoast, and I don't believe it is good for harbors. It is too regular. The Western and the Eastern Ghats lie so close to the coast, that I would infer there is not much chance for harbors. The Ganges River has a very large delta. According to the railroad map, India has more railroads than any other country of Asia. There are not many islands around India. I wonder if the people are good seamen or are much interested in the sea. (The teacher suggests that the great extent of plains might keep their interest on farming instead.) By the scale of miles, India is about 1800 miles from north to south, and a little more from east to west. India is so close to the equator that I should expect it to be very warm everywhere, except in the mountains. Much of India is in the torrid zone, but it has the sea on two sides. That ought to moderate the heat somewhat, if it receives its winds from over the sea. Baluchistan is made up of mountains and plateaus and does not have a very dense population.

Some interest centers which children suggest. I have always heard that the people of India are very poor. I should like to find out why. I should like to find out just how the common people live, what they eat, what kind of houses they live in, etc. How can so many people live here? The area is a little more than half that of the United States, and the population is three times as great as ours. I should like to know why they have so many beggars. Why are there so many famines? I should like to find out about the interesting wild animals — tigers and elephants — and snakes, etc. I should like to model India in sand and describe its different physical regions. I have always had a curiosity to know more about the Himalaya Mountains. Why is not this large country independent? Is it good for India to be controlled by the British, or not? How are women treated in India? Just what is the caste system, and what does it mean in the everyday life of the people? I

will find out more about the Taj Mahal. I am going to look up the subject of teakwood and see how they use elephants in handling the logs. Why has Burma so sparse a population? I cannot see how England governs this great country. Why, it has more than six times the population that Britain has! Do the people of India emigrate to other lands? Do other countries want them to come? Why do we see so few of them in our country?

Working out one of the problems. Several of the interest centers mentioned would prove to be excellent problems for this area. The outstanding facts with regard to India are its arrangement of physical regions into a pattern which has not favored unity among its people; its avenues of approach by land and sea, the Khyber Pass on the northwest, and the forested path into China in the northeast; its invasion by different races; the political, religious, and economic diversity of its peoples; the extreme fertility and endurance of its wide areas of good soils; the influence of its summer rain and of its constant high temperatures; a land that juts into the sea but is not of the sea; a people who are *land-minded* and not seafaring; a land crowded to the very margin of existence by a farming people, illiterate, weakened by their " mosquito climate " until their physical energy is scarcely three fourths that of the European or American; dominated politically by a small island kingdom of the temperate zone; with remnants of an ancient civilization and culture in some lines unsurpassed; with leaders arising whose intellectual and spiritual leadership cannot be questioned. An ancient people, difficult for the Western mind fully to understand, whose qualities of mind and soul we cannot but admire. (See Fairgrieve: *Geography and World Power.*)

Select some one of the interest centers mentioned by the class, as a basis for a problem study, as, for instance, the following: *India is the second most populous country in the world; its territory is large and rich. Why is it not independent?*

The class and the teacher should outline the problem together, using the following suggestions: What does a country

need in order to be independent? "It needs to have good boundaries, so that it will be easily defended," says one. "It needs to have its people all united and working together," says a second. And it needs good farming land and a good climate so that it can raise food enough for its people. It ought to have coal and iron. It ought to have good schools so that all its people can be educated. If it is on the coast, it ought to have a good navy and a merchant marine. It ought to have an army. It ought to have good leaders. It ought to have railroads and good roads so that the people can get together easily. It ought to have good sanitation so that the people will be healthy. It ought to have its people of the white race. (The teacher questions the narrowness of this requirement, and suggests that one purpose in the study of geography is to overcome any form of race prejudice.)

Let us arrange a series of questions about India, the answers to which will help us to decide whether she has the necessary requirements for independence.

1. Is India well located for independence? Are most lands in the same latitude as that of India self-governed? Is it in a good neighborhood for advance in civilization? for trade? Is it on important commercial highways? (The Suez-Singapore sea route should be discussed, and the Indus-Ganges land route; the Khyber Pass and its route, etc.) What are its busiest seaports? What is the character of their harbors? (See encyclopedias.) Do the railroads center at any of these seaports? What parts of India have the thickest network of railroads? What parts the least?

Summarize in a paragraph your conclusions as to India's opportunities for business relations with other lands, based on her situation with regard to trade routes. In this summary mention distances between India and Britain, the United States, Japan. On the whole, what effect will this have on her gaining independence?

2. Does the arrangement of physical features favor unity? Are the boundaries natural or largely artificial? Is India easily invaded? Are there peoples in neighboring areas who might covet India's rich lands? Has India been often

invaded? (Huntington: *Asia; A Geography Reader*, page 310.) What kind of a boundary do the Himalayas make? the swamps and jungles of the eastern plain? the border mountains and the coast lines of the peninsula? Is travel easy between remote parts of the empire, as from Baluchistan to Calcutta? from the western Himalayas to Madras? The Chinese very early made much use of their rivers for transportation. Was this true in India? The Chinese plain is coastal, while the Indian plain cuts across country, east and west. Which situation seems more favorable for holding the people together? Would the people of the plateau in the peninsula (the Deccan) associate freely with the people of the plain? with the people of the coast? Would their interests be similar? Would there be a close connection between the people of Bombay and Rangoon? (Fairgrieve suggests that the natural divisions are too large to favor unity.)

3. Are the soils of India capable of producing sufficient food crops and other crops for the population? Turn to the physical map of India, and notice carefully the great plain. How many rivers do you find? Where do they rise? In descending the steep slopes of the Himalayas, would they pick up much of a load of sand, soil, and gravel? Where would this load be deposited? How would this affect the plains? Is new soil being constantly brought down from the mountains? Can you find a statement as to the depth of alluvial soils in places on the plain? Describe such soils as to fertility, endurance, etc.

Turn to Burma on the map, and notice the rivers, flowing almost parallel southward. Where do they rise? Do they carry much of a load? What soils do you expect here? Where, along the watercourses, will the widest and deepest alluvium be found? Where do you find the largest cities in Burma? The Indus-Ganges plain is said to be the most extensive sheet of level cultivation in the world. What have you noticed as to its population? its railroads? its cities? What is the area of this plain? About how wide is it? If vou could stand on some high roof and look across it,

how do you think it would impress you? What is the most level land you ever saw? Why is level land favorable to most types of farming? What are the leading crops grown here? Where is the best wheat area?

Look at the plateau of the peninsula. Will you expect the same soils here as in the plains? In many places here are found excellent lava soils. Where are wide areas of lava soils found in the United States? What are the crops of the plateau?

Write two or three paragraphs on soils in India. Judging by her soils, could India produce great crops? How would this affect her chances for independence?

4. Is the climate of India such as to favor the growing of heavy crops? the development of human energy?

Judging by the latitudes, what can you infer as to the angle of insolation; that is, the height of the noon sun in the sky, in winter as well as in summer? What can you infer as to the length of the days? Will there be much change in the length of days in summer and in winter? What difference would this make as to warmth? Fairgrieve says, "Nearly the whole of India is warmer in winter than any part of China." Name three places in India where this would not be true. Why? Find some statements in your textbooks as to the heat and its effect on Europeans or Americans who go there to live. When is the hottest season? Why? See isotherm maps for January and July temperatures.

About two thirds of India has a monsoon climate. Explain what that means. How does it affect the rainfall? What is the general wind direction in June? in December? Why does this change occur? Where is the heaviest rainfall in India (see rainfall map)? the least? About what fraction of India has enough rain for crops? Sometimes the monsoon fails to bring rain. Result? We often have seasons in the United States when wheat, corn, or potato crops are very poor. Why does this not cause a fearful famine here? Find a description of the coming of the monsoon and of the rejoicing of the farmers when it arrives. Why are three fifths of the people farmers?

What effect has the hot rainy summer on health and energy? Would mosquitoes thrive here? How do they endanger life? What advantage does the dry season give? In what parts of India are the people at their best physically?

In a brief write-up on the climate of India, summarize its effects on the people who live there. Does it tend to develop a self-governing people? Most of the native Indian people belong to our race. Account for difference in development.

5. What kind of people live in India? Are they all of one race, or are they of different races? To what race do the Hindus belong? Why is this white race so dark-skinned? Can you think of any reasons why there are so many races, languages, and religions in India? How has the diversity of races developed the caste system? Does the caste system encourage or discourage self-government? Why are so many "holy men" supported in idleness? Are most of the people educated? What per cent cannot read? (95 per cent.) What other hindrances are there to their immediate independence? Are the people energetic, full of initiative? What great attainments have they made in art and in literature? Nowhere on earth is there such poverty as in India; a great part of the population is always destitute. Suggest four or five reasons for this condition.

What is the density of population per square mile? Compare with Britain, China, the United States. What effect does this overcrowding have on Indian standards of living? What per cent of the people live on farms? Describe the home of a farmer in the Ganges Valley — his house, furniture, food, clothing, some of his customs. Is his house on his farm land or in a near-by village? About how large is his farm? Does he own the land, or does he rent it? What crop does he raise? What live stock does he keep? Why are there so many cattle and goats here? How does the farmer manage to raise more than one crop a year? Recall that irrigation is more extensively practiced in India than anywhere else in the world. Why should areas having a sufficient rainfall develop an elaborate irrigation scheme? Can the farmers of India raise food enough for all the population, or must

they import some? What oilseeds are grown here that we are not familiar with? Why do most of the people have an exclusively vegetarian diet?

Is manufacturing well developed? Along what lines? What essential minerals are found here? The coal output is about 19 million tons a year. Is this a large amount? On the whole, is India as well supplied with coal, iron, and copper as China? Has India much water power? Where are the leading factories? Why are there not more? What raw materials are sent out of the country to be manufactured? Why is there so heavy an export of jute, hides and skins, and cotton? Would famines be so serious in India if there were more people engaged in manufacturing? Judging by their raw materials, and by the home demand for manufactured goods, what manufactures could develop here? What home manufacturing is carried on? Describe how the village people make their own dishes, jars, etc. How does the caste system hinder the development of manufacturing? At present, India is undergoing a great industrial change. Give some reasons for this.

6. Can you find out how the British came to control India? Why do not the 300 million people rise up in rebellion against the few British officials that control them? Do the English keep a large army in India to subdue the natives? How do they govern the land? In what ways have the English greatly benefited India? (Methods of irrigation, development of manufactures, building railroads and highways, establishing schools, providing a stable government, improving sanitation, opening up mines, furnishing a market for goods, encouraging shipping.) Can you add two more to this list?

Making a summary. In one column list all the points favorable to the independence of India; in another column, the unfavorable points. Draw your conclusions from this. Eventually India will become self-governing. What changes are needed before this takes place?

Some fact questions. Where would you go in India or Ceylon to see cotton growing? cotton mills? wheat fields?

rubber plantations? teakwood forests? the most crowded area? the wettest area? the driest region? great swamps? forest jungles? the most beautiful valley in the world? a sacred city? the largest city? the most beautiful building in the world?

Suggestions for children's activities. Arrange for different members of the class to give short talks on such subjects as: (*a*) a Hindu school, (*b*) preparing a meal in India, (*c*) a visit to a bazaar, (*d*) travel on Indian railway trains, (*e*) logging with elephants in Burma, (*f*) the story of a common gunny sack, (*g*) my experiences as a high caste girl (or boy), (*h*) my visit to Calcutta, (*i*) my visit to Bombay, (*j*) interesting animals of India, (*k*) my visit to the happy people of Burma, (*l*) story of a Burman woman, (*m*) story of a Hindu woman, (*n*) a rubber plantation in Ceylon, (*o*) rice farming in Burma, (*p*) the story of the Taj Mahal, (*q*) India's great poet, Rabindranath Tagore, (*r*) India's reformer, Ghandi.

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UNIT 22. AFRICA

Time required: 6 to 8 weeks

Finding the starting point. Before we open our textbooks and reference books to find out about our new unit of study, let us talk over what we already know.

In thinking of Africa, some of us will be reminded first that it is a famous hunting ground, the home of big game. What animals do you recall first? Why can these live here? Have you heard travelers or missionaries tell of life in Africa? What impressed you most? What movies have you seen? Have you read stories of Livingstone and Stanley? of Kitchener of Khartum? of Jan Smuts and the Boer War? of what South Africa did in the World War? of the pirates of the Barbary States and how the United States treated them?

Do you recall any accounts of Liberia, the negro republic? What President of the United States helped this republic to get a start? What stories of the slave trade in America do you recall? Can you tell where in Africa most of our former negro slaves came from? Where are most of our American negroes living now?

Do you know any Rhodes scholars? What have you heard about Cecil Rhodes? Oom Paul Kruger? Have you read something about the Kimberley diamond mines in South Africa? the Rand gold fields? Here are some words that one often finds in reading about South Africa. Which of them are familiar to you? *Trek, veldt, kraal, kopje, Kaffir, Bushmen, Hottentot, calabash, mealies?* In North Africa these words are heard: *Bedouin, sheik, Berber, wadi, mehari, oasis, pyramids, sphinx.* Add two words to each list. What desert stories do you recall? history tales of Egypt? What have you learned about the Nile River? What do you recall as to the African lands controlled by European nations? Do you know the three countries of Africa which are independent? Do you know what European nation controls most land?

Africa furnishes us some articles of everyday use. Most of our cloves come from the Zanzibar area. Our ivory comes largely from Africa; what uses of ivory do you recall? Palm oil seems to be an important item of commerce nowadays; some one says that wherever the oil palm grows in quantity, it will pay to put in a railroad. What uses of palm oil do you know? What advertisements mention it? What else do we get from Africa?

You have heard of some very interesting native peoples of Africa — the Pygmies, perhaps. What others?

Have you found an impressive description of a tropical forest? What have you read about the Congo? (Vachel Lindsay's *The Congo* grips the imagination.) Some of the horrors of Africa have impressed us deeply — the sleeping sickness, caused by the tsetse fly; the poisonous snakes and insects; the forest solitudes; the desert heat and loneliness; the cannibalism, the inter-tribal wars and enslavements, the atrocities in the Congo, the dangers from wild animals, etc. (It is not wise to stress these points unduly.) Give every place-name in Africa you can think of. It will help us to get a good start in our study.

Reading the map. In reading the map of Africa, search closely for evidence as to the kinds of climate to be found here. No other map tells the story of climatic belts quite so clearly.

References

ATWOOD: *New Geography*, pages 218, 227, 230, 231; Appendix, plates A and B, pages iv, v.

BRIGHAM AND MCFARLANE: *Essentials of Geography*, Second Book, pages 254, 256 (climatic maps), 368, 370, 372, 375; Appendix (product maps).

MCMURRY AND PARKINS: *Advanced Geography*, pages 232, 237 (climatic maps), 447–449, 451–452, 470.

SMITH: *Human Geography*, Book II, pages 286, 351, 356–357, 372.

Map facts children suggest.

1. Africa is nearly all a plateau. It has less plains area for its size than any other continent.

2. Africa has a very straight coast line. It has no great peninsulas or inland seas. There are very few islands around

it. I wonder if the people are good seamen. (The teacher asks if more islands are found associated with irregular broken coasts than with straight coasts.)

3. By the scale of miles, Africa is nearly 5000 miles in its longest and its widest distances.

4. Africa is so close to Europe and Asia that it really is a part of them. It seems strange that it was so slow to be settled when it is so near these densely populated continents.

5. Africa has its highest mountains rather close to the coast. There are not many mountains as compared with Europe, Asia, or the Americas.

6. There are narrow coastal plains on the north and in broken lines on the east and west. The Congo Basin is a kind of central plain. It has no extension to the coast.

7. The equator crosses Africa almost in the middle. Africa is also crossed by the two tropics. It is the only continent that is crossed by both tropics.

8. I find three great deserts here: the Sahara, the Libyan, and the Kalahari. I am sure that these deserts would make it difficult for explorers to get to the interior of the continent.

9. About two thirds of the continent is in the torrid zone.

10. There is a chain of lakes east of the Congo Basin. I wonder if they can be used for transportation, as our Great Lakes. They do not seem to be connected so closely.

11. The Nile is the longest river. It has many tributaries in its southern part, but does not have one tributary in its lower part. Perhaps that is because it is flowing through the desert.

12. Lake Chad, at the edge of the desert, reminds me of Great Salt Lake.

13. The Congo River has tributaries that twist all around in the Congo Basin. I wonder if this river is used much for transportation.

14. There are some short rivers in the northern desert that begin and end there. They do not get out to the sea. That makes me think of the " withering streams " we found in the Great Basin in our own country.

15. I notice many short rivers around the coasts, except where the deserts are. The Limpopo in the southeast makes me think of Kipling's *Jungle Book* and the " great gray green greasy Limpopo River."

16. It seems to me that Africa is a continent that is hard to get into to explore. It has no Mississippi-Great Lakes system, and no St. Lawrence entrance, unless the Nile could be used that way. I think the Nile has too many cataracts to be easily navigable. Africa has no seas like the Mediterranean or the Black or the Baltic, to help in inland travel.

17. I should expect to find a jungle forest along the equator.

18. When I look at the political map, I notice that the boundaries are very irregular. There are only a few straight lines. I wonder if these boundaries follow surface features.

19. The rainfall map shows the heaviest rain on the west near the Gulf of Guinea, and in Liberia. All the Congo Basin has heavy rain. The southeast coast has sufficient rain, while the southwest has less than 10 inches. All of northern Africa is a desert, except part of Morocco and Algeria and the Nile Valley.

20. The temperature map shows that west central Africa is always hot. The eastern coastal lowland is always hot; only two small highland areas, one in the north and one in the far south of the continent, have cold winters. Where the three desert areas are, they have very hot summers and mild winters. In Abyssinia, it is marked " always mild."

21. The population map is very spotty. Egypt, Nigeria, Abyssinia, Morocco, and Algeria seem to be the more crowded areas. The three deserts are, of course, almost empty areas.

22. The French have their African land in the northwest; Britain has much land in the south and east, besides Nigeria and the Egyptian Sudan; Belgium has the Congo Basin; Portugal has three areas, two in the south and one on the west coast north of the equator; Italy has three areas, widely scattered; Spain has a very small coastal strip south of Morocco. Egypt, Abyssinia, and Liberia are independent.

23. The Sudan is a grass land. I wonder if it is something like our prairies.

24. There are many small political divisions around the Gulf of Guinea. I wonder why.

25. The railroad map shows no transcontinental lines. The Union of South Africa has more railroad lines than any other part of the continent. Egypt has a line along the Nile. Other African lines are short spurs running in from the coast. There is no long line along the coast.

26. The economic map shows that cattle are found in many places; more frequently south of the equator. Palm nuts are found mainly along the west coast, in places not too far from the equator, and in the Congo Basin. More minerals are found in the southern part than anywhere else.

27. The arrangement of climatic belts in Africa interests me. The northern belts seem to duplicate the southern.

Light rain
Desert
Grass land
Equatorial forest
Equatorial forest
Grass land
Desert
Light rain

The belts do not run exactly parallel, because highlands interfere. Dry belts widen toward the west. That reminds me that the trade winds are from the east. Lowlands in equatorial areas are rainy, whether they are near the sea or not.

28. With so many plateaus, I think railroading in Arice, would be difficult and expensive.

29. The Congo Basin spreads out wide over the equator, in the middle of the continent.

Interest centers.

1. I should like to find out about the interesting native peoples: Pygmies, Hottentots, Bushmen, Kaffirs, Bedouins, Bantus, Sudanese, and others.

2. The trade of Africa interests me. I should like to find out what they export and import, and something about their lines of ocean travel and their seaports.

3. I should like to know more about the animals of Africa, and why they are found there.

4. I have read something about the Cape-to-Cairo railway, and should like to know more about it.

5. Why are there only three independent countries in Africa?

6. Is it a good thing for a nation in the temperate zone to have control of tropical lands?

7. I should like to know more about life in the African desert.

8. I should like to find out all I can about the Congo Basin.

9. How do the different European countries manage their African dependencies? Which one is most successful?

10. Which European country got the best African territory?

11. Why is Egypt independent?

12. How does it happen that Abyssinia has been able to keep her independence?

13. I should like to find out how that negro republic of Liberia gets along.

14. I have seen so many advertisements about palm oil that I should like to know more about it.

15. I should like to know more about the diamond mines.

16. Is Madagascar a good possession for the French to have?

17. I should like to find out about the white ant and the tsetse fly.

18. I am interested in finding out about the wonders of Egypt: the Pyramids, the Sphinx, the ancient temples, etc.

19. I will look up the life of Cecil Rhodes.

20. I should like to learn all I can about the jungle forest (the equatorial rain forest).

21. Why is there usually such heavy rain along the equator?

22. What areas in Africa are white man's land — where white people can live comfortably?

23. I will find out all I can about the Nile River.

24. I have read that the Victoria Falls of the Zambezi are greater than Niagara. I want to find out more about them.

The selection of interest centers for general class work will probably depend largely on the treatment of Africa found in your principal textbook. Textbook writers differ in their method of analysis. The Atwood text discusses natural regions (physiographic areas); then divides the continent into units based on ownership. Brigham and McFarlane take up each country separately. McMurry and Parkins use political affiliation as a basis for division. Smith discusses climatic regions. All are helpful, and their diversity of treatment makes them rich in suggestion for the teacher who is fortunate enough to possess them all.

Since the personal situation involved in ownership and control of lands has a special appeal to junior high school students, the interest center selected for outlining here has to do with that phase of African geography. Here is a great continent largely divided into shares which European nations hold and rule. How does it happen that this was permitted? Does it prove profitable to the controlling nations to keep these lands? Which nation got the best share? Is it a good thing for the African areas to be ruled by outsiders? Which share is cared for best? Such are some of the queries which come naturally to students of this age. They see the continent as a grab bag. Who grabbed the best share? What are some of the difficulties in keeping these shares? Which parts have the most independence?

Suggested outline.

I. The Independent Countries of Africa

EGYPT

Size, population, character of people; ancient civilization; present opportunity for education and training in modern

enterprises; advantage of location on Mediterranean, near Suez Canal and Red Sea, protection afforded by desert surroundings; the Nile and its tributaries from the rainy lands, its progress through the desert, its seasonal overflow and the causes thereof; effects on lands adjacent (fertilization, irrigation, etc.); modern improvements in irrigation and storage of water, leading crops grown in these irrigated lands, methods of farming; per cent of people engaged in farming, size of farms, system of land taxation; the former British protectorate and its benefits to Egypt; transportation facilities; foreign trade (leading exports and imports), present development of manufactures; the Assuan Dam and its possibilities. Summarize all points favorable to permanent independence. What are Egypt's weakest points?

ABYSSINIA

Begin the investigation by a careful reading of the map of this country. You will assume that the area has some advantages over the rest of the continent, or it would be subject territory. What do you notice as to opportunities for protection? Could it be easily invaded? Most lands so near the equator would not have an energizing climate. Look up rainfall and temperature maps. What helps to overcome the effect of low latitude here? Describe the highlands of Abyssinia as to extent, altitude, mineralization, forests, etc. (See encyclopedias.) What kind of people are found here? (The most vigorous natives of Africa.) What do most of the people do for a living? What are their chief products? Notice their railroad line from the capital city to the Red Sea coast. In general, why has Abyssinia remained independent? What are some of its greatest needs?

LIBERIA

History of its founding; location and description of area; number and character of people; government and customs based largely on those of United States; resources of the

land (the oil palm a leading asset); how the United States has helped its protégé. (See *National Geographic Magazine*, October, 1922.)

II. The Dependent Countries

LANDS RULED BY THE BRITISH

Union of South Africa and its mandate, Southwest Africa; Rhodesia; Kenya and Tanganyika Territory; the Egyptian Sudan; Nigeria; Gold Coast; Sierra Leone.

Union of South Africa — a white man's land. Trace on the map the boundaries of this rich and prosperous part of the British dominion. Notice its area, its latitude; on the rainfall and temperature maps, note the amount of its rain and the nature of its summers and winters. On the physical map, note its altitude. Where are its highest elevations? Note the amount of seacoast held by this Union. What seaports do you find? How are the railroads located with regard to the coast, the seaports, the mineral areas? Are you now ready to summarize reasons why this is a land where white men may settle permanently and live in comfort? What crops are grown here? What minerals are found in the area? What are the leading exports and imports? How does this dependency of Britain help the mother country? How has Britain helped the Union? Why is the climate favorable to fruit growing? Compare this "daughter nation" with Canada and Australia as to form of government and amount of self-government. Has India been given as great a measure of self-government? Why not? What race problem has the Union? What is the population? What per cent of the population is white? Has manufacturing been developed here? The Union has a supply of coal of a fairly good grade. How are the ports here located to be distributing points for coal? From the *Statesman's Year-Book*, encyclopedias, or other reference books, find out how much wheat, corn, cotton, and fruit is grown here. How many million cattle, sheep, hogs? Do the people raise enough food for themselves? What fraction of the world's

diamonds and gold is mined here? Why are Chinese imported to work in the mines? Which has the greater population, Australia or the Union of South Africa? How do they compare in area? How do you account for the greater density here? In what points does the Union of South Africa surpass any other part of the continent?

List facts which help to explain why the Union of South Africa is a self-governing dominion. Some one says of it, "It is a land of big things — big opportunities, big obstacles, big resources, big rewards." Explain.

Rhodesia. This grass and corn and cattle land may be to the Union of South Africa what the western part of our central plains has been to the United States. Explain. Where are its railroads? its markets? What are its chief advantages? its disadvantages? Much of this area is called a *veldt.* Meaning?

What kind of people live in the Kalahari Desert? What do they do for a living? Can you explain why this area is a desert? Why is it not so dry as the Sahara? Does the railroad cross the desert? What traffic in the Southwest African protectorates makes the railroad there profitable? Why does the area east of Kalahari have more rainfall than that west of the desert?

Tanganyika, Kenya, and British Somaliland. Judging by their location, surface features, system of lakes, products, seacoast, and ports, explain why Britain wishes to keep these lands. Here is a list of some of the things Britain has done for her colonies. Add three more. (*a*) Stopped slave trade, (*b*) discouraged wars between tribes, (*c*) developed transportation, (*d*) opened country to missionaries. Will the Cape-to-Cairo railway benefit these lands? What are the chief obstacles to life in these territories? Where in the areas can the white man live comfortably? Look up the tsetse fly in encyclopedias and other books of reference. Outline the boundaries of the tsetse-fly areas. Can such an area be a cattle land? Look up stories of big-game hunters in Africa and notice what part of these territories they traveled over. Find out about cloves in the Zanzibar area.

Are there many navigable rivers in these territories? Find a description of a steamboat ride on Lake Victoria Nyanza. What are the chief interests of the people of the Sudan? Why is this a grass land? Beyond the outer margin of the equatorial rain forest, why is it the home of large animals? Note the three distinct types of climate found here. Could the Sudan, like Egypt, become a cotton-growing area? Would England encourage this?

What reasons can you find to explain the comparatively dense population of Nigeria? Find the railroad here. Explain the heavy rainfall. Is the Niger navigable? What other Gulf of Guinea possessions has Britain? Why are they of value? Would northern or southern Nigeria be more promising? Write a few pages stating how Britain's African possessions are of value to the British Empire.

LANDS RULED BY THE FRENCH

Why is it advantageous to France to control *Tunisia*, *Morocco*, and *Algeria?* About how far is it from Marseilles to Algiers? These three provinces have much the same climate as southern France. What are the characteristics of the Mediterranean climate? What crops grow in the winter-rainfall type of climate? How do the highlands (the Atlas Mountains) affect the temperature and rainfall here? Notice temperature and rainfall maps. What rainfall do you find back of the Atlas Mountains? Why are goats so common here? Why is barley an important cereal? What products found here are in demand in France? From the *Statesman's Year-Book* or encyclopedias, list the exports of these provinces. To what countries are they sent? What are the leading imports? Does France furnish most of them? What has France done for these areas in establishing government, building railroads and highways, encouraging education, developing mining, etc.? Why is Algeria given representation in the French parliament? France requires military service of her young men. Are the young men from French Africa also called on to help defend continental

France? What kind of people are found here — their race, religion, other characteristics? What do most of them do for a living? What effect has the neighboring desert on trade, on business enterprise, on climate, on the ideals and interests of the people?

What are some of the difficulties in holding a desert possession like the Sahara? Are nomadic peoples easily controlled? What is France doing to encourage more permanent settlements? Why is the date palm so important to nomads? Look at the rainfall map; then decide why Timbuktu is a chief trading center for the Sahara. Is the Niger navigable here? What caravan routes can you trace? What are the freighting camels probably carrying on their way to Timbuktu? on their way back? Can you explain why this great territory is a desert?

What use does France make of Kamerun and French Equatorial Africa? of French Somaliland?

On the whole, what French possessions in Africa are most valuable and helpful? Which are white man's lands? Why is Madagascar one of the most important French colonies?

LANDS RULED BY BELGIUM

(See *Saturday Evening Post*, February 12, 1921.)

The Belgian Congo. This is a land of adventure and hardship, often called the last frontier of civilization. If you were going to travel in the Congo Basin, what equipment would you need to take? Why must you pack all clothing, etc., in metal boxes? How far could you travel up the Congo from the coast, until you would transfer to the railway train from your boat? Why is the transfer necessary? Where could you change back to river travel? What fuel is used on these river boats? What meats, fruits, vegetables would you have to eat? Would the jungle forest continually line the river banks? What big-game animals might you see? What type of negro tribes are found in this forest land? How do they differ from the Sudanese? Kaffirs? Hottentots? Can you think of one reason why Pygmies

are found only in the equatorial forest? How far up the Congo can you travel by boat? What freight would you expect to see along the banks, awaiting shipment by boat? The oil palm is the staff of life in the Congo. Mention five uses the natives make of the tree and its nuts. Why is big business scouring the ends of the world to find oil-palm trees in quantity? For what reason is the palm-oil industry more dependable than the wild rubber industry? What railroad lines do you find mapped in the Congo Basin? Does the oil-palm business, as the natives handle it, call for expensive machinery? What cotton areas do you locate here? Of course this will call for cotton gins. Where would the machinery probably come from? If you travel in the Congo, what special precautions must you take for your health? Why? What is your protection from the glaring sun? Do you expect to find that the natives are very energetic and have a will to work? Why is it not necessary for them to work as hard as we do in our latitudes? How long are the days at the equator? Is this an advantage? As you read and think about these people who have not been born in highly progressive lands, you realize something of what Kipling meant by the "white man's burden." What are some ways for white people to help these natives along the road to civilization? Often the first touch of civilization is harmful rather than helpful. Why?

What is the food of the natives? Bread made from roots seems strange to us. How is it prepared? Why are so many chickens raised by the natives? What is grown in their little garden patches? Where in the Congo is the cattle area? The mineral area, the Katanga district, is famous for its copper. Trace on the map the railroad from Katanga across Angola. To what seaport? Why are the products of the jungle forest usually discovered and used before the mines are developed? Are beasts of burden common here?

Can you describe a true equatorial forest — the variety in the species; the trunks, leaves, and canopy of the trees; the forest floor, where the shade-loving plants are found; the vines and runners? Why are the big-game animals not

found in the dense forest? Where else in the world would you find equatorial forests?

The worst enemies of the Congo are the mosquito, the tsetse fly, and the white ant. Why? What others do you add to the list? Why is the plantain (a kind of banana) so valuable? If you were planning to invest capital in the Belgian Congo, what enterprises would interest you most?

Debate: *Resolved*, That the oil palm is of more economic value than the coconut palm.

LANDS RULED BY ITALY

Consult the encyclopedias, the gazetteer, and other reference materials to discover the chief values and interests in Libya, Eritrea, and Italian Somaliland. Be sure to get from the maps all the facts and inferences that you can find. Such questions as these may arise: Is the position of Somaliland on the African "horn" an especially favorable one? In how far do desert conditions hinder Eritrea and Libya? Ancient Rome was unusually successful in colonization. Is modern Italy also successful? Do these African possessions give Italy a place to which she may send her surplus population as colonizers? Do they furnish Italy with needed raw materials for manufacture, with food, or with fuel?

Much the same type of questions will arise for brief study of the African lands ruled by Portugal and Spain.

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UNIT 23. AUSTRALIA

Time required: 2 weeks

Finding the starting point. What Australia furnishes to us: wool, meat, hides and skins, rabbit fur for felt hats, copper, etc. Interesting facts we have heard about Australia and New Zealand, such as boomerang throwing; how kangaroos are different from animals of other continents; what we have heard about Maoris (native New Zealanders); where rabbits are a plague; the great sheep ranches (called "runs"); the geysers of New Zealand; etc. Consult the unit study of the British Isles and learn what Australia and New Zealand send to the home land. What have you heard about the bravery of the "Anzacs" (Australians and New Zealanders) in the World War? Have you read history stories about Captain Cook and the discovery of Australia?

Reading the map. On the globe and the world map, Australia seems to be set off by itself. Judging by the scale of miles, it is about 6000 miles from Australia to California; about 14,000 miles to England; about 6000 miles to South Africa; over 4000 miles to the Hawaiian Islands; over 1000 miles to New Zealand. The near neighbors, the East Indies, would not be very helpful to Australia, I think. In shape, Australia looks a little like a ragged shell. (The teacher may suggest that one writer calls it an empty shell, so far as population is concerned.) Its coast line is not very irregular; the Gulf of Carpentaria is shaped something like the Gulf of Tarento in Italy. There are a few lakes in the southern part of the island. Nearly all the rivers are in the eastern half; I wonder if that is where the heaviest rainfall is. The pattern of the surface features makes me think of our own country; there is an eastern highland rather close to the coast; then comes a belt of plains, with an irregular plateau to the west; beyond that is a coastal plain. Australia has no wide mountain belt like our Rockies. The coastal plains around the Great Australian Bight remind me of our gulf plains. When I look at the population map, I see that nearly all the people live in the southeast part. The western plateau is almost empty. The Tropic of

Capricorn runs through the island; that tells me that all the country north of that line is in the torrid zone; I shall not expect that part to be a good home for white men. The 30th parallel also runs through Australia; that locates roughly the boundary line between the southeast trades and the westerly winds. I wonder if the big continent of Asia affects the world winds here, and so causes monsoons. By the rainfall map I see that more than one third of the whole continent has less than 10 inches of rain. Does any other continent have as much desert for its size? The highest rainfall is on the eastern and northern coasts and in Tasmania; there is also a corner in southwest Australia where there is sufficient rain. New Zealand has its heaviest rain on the west; I think that is because it is in the path of the westerlies. Australia is divided into six states; Victoria and New South Wales have over half of all the population.

Discovering some interest centers. I should like to find out more about the big sheep ranches. It would be interesting to find out why most of the people live in the southeast part. I've heard about the mining town of Coolgardie, and how the water they use is piped all the way from Perth; I should like to find out more about that. The queer plants and animals interest me. Since the British Isles are so overcrowded, I wonder why more people do not move to Australia. What would it be like to live in tropical Australia? Could Australia support a much larger population? I should like to visit Melbourne to see what it is like. Why is New Zealand rated so high? Could New Zealand support a larger population? How do most people make a living there? Is much manufacturing done in Australia? I should like to compare Australia and Canada, to see which is the more hopeful country.

Working out some of the problems. We found overcrowded lands in Europe and Asia; in Japan especially, we found far too many people for the area and the possible food production. Australia, on the other hand, is an empty land; it could easily support ten times as many people as it now has; it needs immigrants to work its unused fields. The

people who live there, however, have decided that they will not allow any colored people to settle in the continent, as they wish to keep it a white man's land. Are they justified in excluding the Japanese, Chinese, Indians, Malays, and others?

Problem. *Should Australia be kept as a white man's land?*

1. The present population. What is the present population? Where did the people come from originally? What native population did they find here? What has become of the natives? Compare with our situation regarding the Indians. From your reading, find something about the Australians — their characteristics, their interest in the rest of the world, their health, etc. What do most of them do for a living? From the *Statesman's Year-Book*, encyclopedias, and other works of reference, find out what is their wealth per capita; what per cent own any land; about what is the present rate of immigration. Australia is self-governing; how is the parliament made up? Who of its citizens can vote?

2. Can Australia take care of more people? It is claimed that Australia could provide homes and employment for fifty million people, instead of the present five millions. What is the density of population per square mile? Compare with that of Canada, the United States, Argentina. What part of the continent is a plain and so has a surface suitable for farming? It is estimated that at least 16 per cent of the area could be cultivated. Less than 1 per cent of the entire area is now cultivated. Can you find some reasons for this? Sometimes such a condition is due to a labor shortage; sometimes to the fact that much of the land is held in large estates; sometimes to poor transportation facilities. Are these true in Australia?

From the rainfall map determine what part of the continent has sufficient rainfall for crops. Consult your textbooks to find how uncertain the rain is over much of the continent, and some effects of this variability. What reasons can you give for the dry interior of the continent? for the summer rains of the northeast coast? for the winter rains of the southwest coast? Consider the possibilities of irrigation; on the map, determine some areas that seem hopeless; others,

that could be reached by water from rivers. Read about the artesian wells which have been dug in many places. Recall that Australia is about the size of the United States. Has it as much land under cultivation? Has it as many farmers? What per cent of the present population is farming?

The following figure facts help us to see what materials for food are produced annually in Australia: wheat, 145 million bushels; oats, 18 million; barley, 7 million; corn, 7 million; sugar cane, $1\frac{1}{2}$ million tons. Besides these products there is a heavy yield of potatoes, fruits, grapes, etc.

Summarize your conclusions as to the possibility of developing more farming land and producing more food.

Australia ranks first in the world in number of sheep and amount of wool produced. In an average year the continent will have about 80 million sheep, 12 million cattle, and about 1 million hogs. Read in your textbooks about the famous merino breed of wool sheep. Describe a great sheep ranch. Tell how the sheep are cared for; the grasses they graze (the saltbush); how rabbits are enemies to the sheep; etc. Locate on the map the most important sheep areas. Are all available sheep-grazing lands now used? Why is transportation not so important a factor in the wool-sheep industry? Why are there so many mutton sheep in Australia? How is the meat sent to other countries? Where is the beef-cattle area? Are there many dairy cows in Australia? Where is the butter sent? Why are there so many more sheep than hogs here? Reach conclusions as to whether Australia could produce more meat. Does the world demand more meat? Would increased live-stock production give employment to many more workmen? Why?

What can be grown in tropical Australia? Is there much demand in the outside world for cane sugar, rubber, coffee, cotton, tropical fruits? What parts of tropical Australia are too dry for such crops? Are there workmen for such plantations? (Judge by your population map.) Could white men do the work on the plantations? What overcrowded farmers of Asia might succeed here, if they were allowed to come? What per cent of tropical Australia is now cultivated? Could it support a larger population?

The forests of Australia are very valuable. Describe the eucalyptus tree, and find from an encyclopedia some of its many uses. To what countries is Australian lumber sent? Are all the forest areas being used? Would this industry take care of many additional workmen?

Would the mining business provide work for more people? Locate the gold, silver, copper, tin, lead, iron, and coal areas. Are the coal fields well located? About what is the yearly coal output? Why is coal exported from Australia to distant lands? Is the home demand for coal very great? (Judge by the development of manufacturing, and by the fuel requirement of warm lands.) What seems to be a disadvantage in the location of the gold fields? Read about the Coolgardie and Kalgoorlie mines, and tell some of the difficulties of mining in the desert. Does it remind you of the nitrate desert in Chile? How are camels used in the Australian gold fields? Are all the known mineral areas now being worked? Is there need of more workmen?

Look at a railroad map, and tell about what areas are best provided with railways. Compare with the population map. Trace the one transcontinental line from east to west across the country. Can you find some reasons for the choice of route? Read about state ownership of railways in Australia. What parts of the country have no railroads? Are those parts well represented in Parliament? Then would Parliament be eager to build railroads in such states? What might make it profitable to build more miles of railroad? In our own Mid-West and Far West, did the larger immigration come before, or after, the railroads were built? Why are not Australian rivers used more for transportation? Find out, if you can, what steamship companies have a regular line of boats to Australia. Do most boats have a cargo both going and coming? Judging by all the available transportation facilities, is Australia easily accessible to settlers? What is needed?

Consult your textbooks to find what goods are manufactured here; then think over the additional manufactures which Australia could develop, judging by the raw material,

the coal supply, the labor supply, and the home demand. The following manufactures from the United States are in demand: cloth and wearing apparel, paints and varnishes, iron and steel, wire fence, farm machinery, electrical appliances, mining machinery, boots and shoes, furniture and lumber, paper, automobiles, etc. How many of these could be made at home? Is it better for Australia to devote herself to producing raw materials, or is she ready to develop more manufactures?

3. Why is Australia reserved for the people of the white race? We have found that Australians are largely descendants of British people, and that they are intelligent, energetic, and ambitious. They are very few in number, however, and immigration is not increasing the population very fast. Much of the continent is still unsettled, and a large area has not even been explored. The tropical lowland has a climate unhealthful for white people; yet it has fertile soils and abundant rainfall, so that it could produce some field crops and tree crops which the world needs. If the colored races were allowed to settle here, what peoples would come from Asia? from the neighboring islands? If they outnumbered the white people, how would they affect the present standards of living? the present form of government? the schools? social customs? Could they be "Australianized" quickly enough to keep the morals and manners of the country at their present level? How do Californians feel toward Japanese immigration? Does Canada permit Asiatics to settle in her big empty country? How about South Africa and the people of India? What is the attitude of the United States toward immigration? Why have we restricted it in the last few years? Why is Brazil more liberal to people of the colored races? From the point of view of the overcrowded peoples of Asia, who have no opportunity to advance, if they do not emigrate, is it fair to keep a rich continent like Australia in reserve for one race? From the point of view of Australians, would it be wise to turn their home land over to Japanese, Chinese, Kanakas, etc.? Might it not be a good thing for future generations if

some great resources of soils, minerals, water power, etc., were held in reserve for a time?

You see that there are two sides to this question. Perhaps you would like to debate the subject. Divide the whole class into two parts, and have an informal debate. This problem of overcrowded peoples and empty lands is one of the most serious questions the world has to face. How would you settle it?

Suggestions for children's activities. Imagine that you are an Australian visiting in Europe. You are telling about your country and are trying to persuade a group of people to come to Australia to live. You are selling farm machinery in Australia. You are a representative of a great American wool-buying company, negotiating for wool in Melbourne. Tell your classmates that you are going to explain to them how parts of Australia resemble parts of the United States. Find a California, a Florida, a Kansas, a Washington, etc. Make a good talk to your class, telling why New Zealand is a good place in which to live.

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